API Well Number: 43007503470000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3
AMENDED REPORT ☑

APPLICATION FOR PERMIT TO DRILL

	1. WELL NAME and NUMBER Wellington Flats 15-11-18E
2. TYPE OF WORK DRILL NEW WELL ◉ REENTER P&A WELL ○ DEEPEN WELL ○	**3. FIELD OR WILDCAT** UNDESIGNATED
4. TYPE OF WELL Oil Well Coalbed Methane Well: NO	**5. UNIT or COMMUNITIZATION AGREEMENT NAME**
6. NAME OF OPERATOR WHITING OIL & GAS CORPORATION	**7. OPERATOR PHONE** 303 390-4095
8. ADDRESS OF OPERATOR 1700 Broadway, Suite 2300, Denver, CO, 80290	**9. OPERATOR E-MAIL** scottw@whiting.com
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) ML-49795	**11. MINERAL OWNERSHIP** FEDERAL ○ INDIAN ○ STATE ◉ FEE ○
	12. SURFACE OWNERSHIP FEDERAL ○ INDIAN ○ STATE ◉ FEE ○
13. NAME OF SURFACE OWNER (if box 12 = 'fee')	**14. SURFACE OWNER PHONE (if box 12 = 'fee')**
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')	**16. SURFACE OWNER E-MAIL (if box 12 = 'fee')**
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')	**18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS** YES ○ (Submit Commingling Application) NO ◉
	19. SLANT VERTICAL ◉ DIRECTIONAL ○ HORIZONTAL ○

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	1988 FNL 652 FWL	SWNW	18	15.0 S	11.0 E	S
Top of Uppermost Producing Zone	1988 FNL 652 FWL	SWNW	18	15.0 S	11.0 E	S
At Total Depth	1988 FNL 652 FWL	SWNW	18	15.0 S	11.0 E	S

21. COUNTY CARBON	**22. DISTANCE TO NEAREST LEASE LINE (Feet)** 652	**23. NUMBER OF ACRES IN DRILLING UNIT** 477
	25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 5280	**26. PROPOSED DEPTH** MD: 8890 TVD: 8890
27. ELEVATION - GROUND LEVEL 5473	**28. BOND NUMBER** RLB-0004585	**29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE** Municipal Water from Wellington

Hole, Casing, and Cement Information

String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
SURF	17.5	13.375	0 - 1500	54.5	J-55 ST&C	9.0	Unknown	475	2.94	11.5
							Unknown	610	1.2	15.6
I1	13.375	9.625	0 - 4800	47.0	L-80 LT&C	9.4	Unknown	265	2.16	12.2
							Unknown	560	1.29	14.2
							Unknown	385	2.15	12.2
PROD	8.5	7	0 - 8890	29.0	L-80 LT&C	9.4	Unknown	325	2.15	12.2
							Unknown	560	1.29	14.2

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	☑ COMPLETE DRILLING PLAN
☐ AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)	☐ FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
☐ DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)	☑ TOPOGRAPHICAL MAP

NAME Larry Brown	**TITLE** CEP H&B Petroleum Consultants	**PHONE** 307 237-2310
SIGNATURE	**DATE** 05/24/2012	**EMAIL** ld_brown@bresnan.net

API NUMBER ASSIGNED
43007503470000

APPROVAL

Permit Manager

RECEIVED: September 13, 2012

Whiting Oil & Gas Corporation
Wellington Flats_15-11-18E Drill Plan
Vertical – Manning Canyon Well
May 17, 2012

Summary:
The Wellington Flats_15-11-18E well will be a vertical Manning Canyon well. The well will be drilled to 8,890' TD and 7" casing will be run and cemented.

Surface Location: 18-T15S-R11E
1980' FNL 660' FWL
Carbon County, Utah

DRILLING PROGRAM

1. ESTIMATED TOPS OF GEOLOGICAL MARKERS:

Ground Level 5,472' Estimated KB 5,494' (22')

Formation	MD	Lithology	Hazard
Mancos	Surface	SH-SS	
Ferron	339'	SS-COAL-SH	
Dakota	1,112'	SS-SI-SH	
Morrison	1,666'	SI-SH-SS	
Summerville	2,160'	SS-SH	
Curtis	2,527'	SS	
Entrada	2,706'	SS-SI	
Carmel	3,201'	SH-SS	
Navajo	3,759'	SS	Water, CO2
Kayenta	4,082'	SS	
Wingate	4,206'	SS	Water, CO2
Chinle	4,651'	SS-SH	
Moenkopi	4,974'	SS-SH-LS	
Kaibab	6,093'	SS-SH	
White Rim SS	6,304'	SS-SH	
Elephant Canyon	6,979'	LS-DOL	
Manning Canyon	8,034'	DOL-SS-SH	Gas
Humbug Fm	8,790'	LS-DOL	
TD	8,890'		

RECEIVED: May 24, 2012

2. PRESSURE CONTROL EQUIPMENT

A. Type: 13-5/8" 5,000 psi double gate hydraulic BOP with 13-5/8" 5,000 psi annular preventer with 5,000 psi Casinghead and 5,000 psi Tubinghead.

B. Testing Procedure:

The annular preventer will be pressure tested to 50% of stack rated working pressure for ten (10) minutes or until provisions of test are met, whichever is longer. The BOP, choke manifold, and related equipment will be pressure tested to approved BOP stack working pressure (if isolated from surface casing by a test plug) or to 70% of surface casing internal yield strength (if BOP is not isolated by a test plug). Pressure will be maintained for ten (10) minutes or until the requirements of the test are met, whichever is longer. At a minimum, the Annular and Blow-Out Preventer pressure tests will be performed:

1. When the BOPE is initially installed;
2. Whenever any seal subject to test pressure is broken;
3. Following related repairs; and
4. At thirty (30) day intervals.

Annular will be function tested weekly, and pipe & blind rams activated each trip, but not more than once per day. All BOP drills & tests will be recorded in IADC driller's log.

C. Choke Manifold Equipment:

All choke lines will be straight lines whenever possible at turns, tee blocks will be used or will be targeted with running tees, and will be anchored to prevent whip and vibration.

D. Accumulator:

Accumulator will have sufficient capacity to open hydraulically-controlled choke line valve (if so equipped), close all rams plus annular preventer, and retain a minimum of 200 psi above precharge on the closing manifold without the use of closing unit pumps. The fluid reservoir capacity will be double accumulator capacity and the fluid level will be maintained at manufacturer's recommendations. Accumulator precharge pressure test will be conducted prior to connecting the closing unit to the BOP stack.

E. Miscellaneous Information:

Choke manifold and BOP extension rods with hand wheels will be located outside rig sub-structure. Hydraulic BOP closing unit will be located at least twenty-five (25) feet from the wellhead but readily accessible to the driller. Exact locations and configurations of the hydraulic BOP closing unit will depend upon the particular rig contracted to drill this hole.

A flare line will be installed after the choke manifold with the discharge point of the flare line to a separate pit located at least 125 feet away from the wellbore and any existing production facilities.

A volume monitoring system with alarms will be used to monitor pit gains/losses along with visual backup.

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3. PROPOSED CASING PROGRAM

A. Casing Program: All New

Hole Size	Casing Size	Wt./Ft.	Grade	Joint	Coupling OD	Burst (psi)	Collapse (psi)	Tension (Body/Joint) (klbs)	Depth Set (md)
17-1/2"	13-3/8"	54.50	J-55	ST&C	14.375"	2,730	1,130	853/514	0 – 1,500'
12-1/4"	9-5/8"	47	L-80	LT&C	10.625"	6,870	4,750	1,086/893	0 – 4,800'
8-1/2"	7"	29	L-80	LT&C	7.656"	8,160	7,020	676/587	0 – 8,890'

13-3/8" surface casing will have centralizers as follows:

1. Install a bowspring centralizer at the first and second collars above the guide shoe.
2. Install one bowspring centralizer every third joint above the second collar.
3. Centralizer and basket placed 120' below the surface (or at the bottom of the third joint below the surface).
4. Centralizer and basket placed 80' below the surface (or at the bottom of the second joint below the surface).

9-5/8" intermediate casing will have centralizers as follows:

1. Install a bowspring centralizer at the first and second collars above the guide shoe.
2. After that centralize every third joint to surface with single bow spring centralizers

7" production casing will have centralizers as follows:

1. Install a bowspring centralizer at the first and second collars above the guide shoe.
2. After that centralize every third joint to surface with single bow spring centralizers.

Casing string(s) will be pressure tested to 0.22 psi/foot of casing string length or 1500 psi, whichever is greater (not to exceed 70% of the internal yield strength of the casing), after cementing and prior to drilling out from under the casing shoe.

B. Casing Design Parameters:

Surface Casing

Interval	Size	Wt	Grade	Burst (psi)[a]/SF	Collapse (psi)[b]/SF	Tension (klb)[c]/SF
0' – 1,500'	13-3/8"	54.50 lb/ft	J-55	2,730/2.59	1,130/1.61	514/7.29

a. based on frac gradient at shoe of 14.0 ppg
b. based on full evacuation with 9.0 ppg fluid on backside
c. based on casing string weight in 9.0 ppg mud
String Weight in 9.0 ppg mud ≈ 70,517 lbs

Intermediate Casing

Interval	Size	Wt	Grade	Burst (psi)[a]/SF	Collapse (psi)[b]/SF	Tension (klb)[c]/SF
0' – 4,800'	9-5/8"	47.0 lb/ft	L-80	6,870/4.92	4,750/2.02	893/4.62

a. based on frac gradient at shoe of 14.0 ppg
b. based on full evacuation with 9.4 ppg pore pressure on backside
c. based on casing string weight in 9.4 ppg mud
String Weight in 9.4 ppg mud ≈ 193,224 lbs.

Production Casing

Interval	Size	Wt	Grade	Burst (psi)[a]/SF	Collapse (psi)[b]/SF	Tension (klb)[c]/SF
0'-8,890'	7"	29.0 lb/ft	L-80	8,160/1.17	7,020/1.62	587/2.66

a. based on 7,000 psi frac pressure.
b. based on full evacuation with 9.4 ppg pore pressure on backside
c. based on casing string weight in 9.4 ppg mud
String Weight in 9.4 ppg mud ≈ 220,811 lbs.

RECEIVED: May 24, 2012

4. PROPOSED CEMENTING PROGRAM

Surface Casing – 13-3/8" Casing: TOC Surface, (100% Excess)

CASING	SLURRY	FT. of FILL	CEMENT TYPE	SXS	XC (%)	WEIGHT (ppg)	YIELD (ft^3/sx)
13-3/8"	Lead	1,000'	Lead Cement Rockies LT; - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) - 0.25 lbm/sk Kwik Seal (Lost Circulation Additive)	480	100	11.5	2.94
13-3/8"	Tail	500'	Tail Cement Premium Cement; - 94 lbm/sk Premium Cement (Cement) - 2% Calcium Chloride (Accelerator) - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)	610	100	15.6	1.20

A cement top job is required if cement fallback is greater than 10' below ground level.

Intermediate Casing – 9-5/8" Casing: TOC Surface, (Stage Tool at 2,100' – Stage_1 - 50% Excess, Stage_2 – 50% Excess)

CASING	SLURRY	FT. of FILL	CEMENT TYPE	SXS	XC (%)	WEIGHT (ppg)	YIELD (ft^3/sx)
9-5/8"	Stage_1 – Lead	1,500'	First Stage Lead Cement ECONOCEM; - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) - 1 % HR-5 (Retarder) - 0.2 % Super CBL (Expander)	330	50	12.2	2.16
9-5/8"	Stage_1 – Tail	1,200'	First Stage Tail Cement EXTENDACEM; - 0.5 % HR-5 (Retarder) - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) - 3 lbm/sk Gilsonite (Lost Circulation Additive)	450	50	14.2	1.29
9-5/8"	Stage_2 – Lead	2,100'	Second Stage Primary Cement ECONOCEM; - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) - 0.5 % HR-5 (Retarder) - 0.2 % Super CBL (Expander)	390	50	12.2	2.15

Cement volumes for the 9-5/8" Production Casing will be calculated to provide a top of cement to Surface.

All waiting on cement (WOC) times will be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

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Production Casing – 7" Casing: TOC Surface, (35% Excess)

CASING	SLURRY	FT. of FILL	CEMENT TYPE	SXS	XC (%)	WEIGHT (ppg)	YIELD (ft^3/sx)
7"	Lead	4,800'	Lead Cement ECONOCEM; - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) - 0.8 % HR-5 (Retarder) - 0.2 % Super CBL (Expander)	330	35	12.2	2.15
7"	Tail	4,090'	Tail Cement EXTENDACEM; - 0.4 % HR-5 (Retarder) - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)	560	35	14.2	1.29

Cement volumes for the 7" Production Casing will be calculated to provide a top of cement to Surface.

All waiting on cement (WOC) times will be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

5. MUD PROGRAM

Depth (MD)	Mud System	MW	PV	YP	FL
0 -1,500'	Water, Gel/Lime Sweeps	8.4 – 9.0	2 - 20	2 - 18	NC
1,500' – 4,800'	3% KCL Water/Polymer	8.4 – 9.4	10 - 28	6 - 18	6 - 10
4,800' – 8,890'	3% KCL Water/Polymer	8.4 – 9.4	14 - 32	10 - 22	4 - 10

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6. EVALUATION PROGRAM

Cores: 60' of core planned from 4,974' to 5,034'.
60' of core planned from 8,034' to 8,094'.

DST: None planned

Surveys: Deviation surveys every 500' to TD in the surface, intermediate and production holes.

Mud Logger:
Samples: 30' samples surface to 8,890'

Open Hole Logging Program: Triple Combo 8,890' to Surface

7. ABNORMAL CONDITIONS

No abnormal pressures are anticipated. No H_2S gas is anticipated.

Anticipated bottom hole pressure is 3,849 psi (0.433 psi/ft) at 8,890' TVD in the Humbug and the maximum anticipated surface pressure equals approximately 1,894 psi (anticipated bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot of hole).

8. ANTICIPATED STARTING DATES

A. Anticipated Starting Dates:

Dirt work startup: July 2012

Spud: July 2012

Duration: 25 – 35 days

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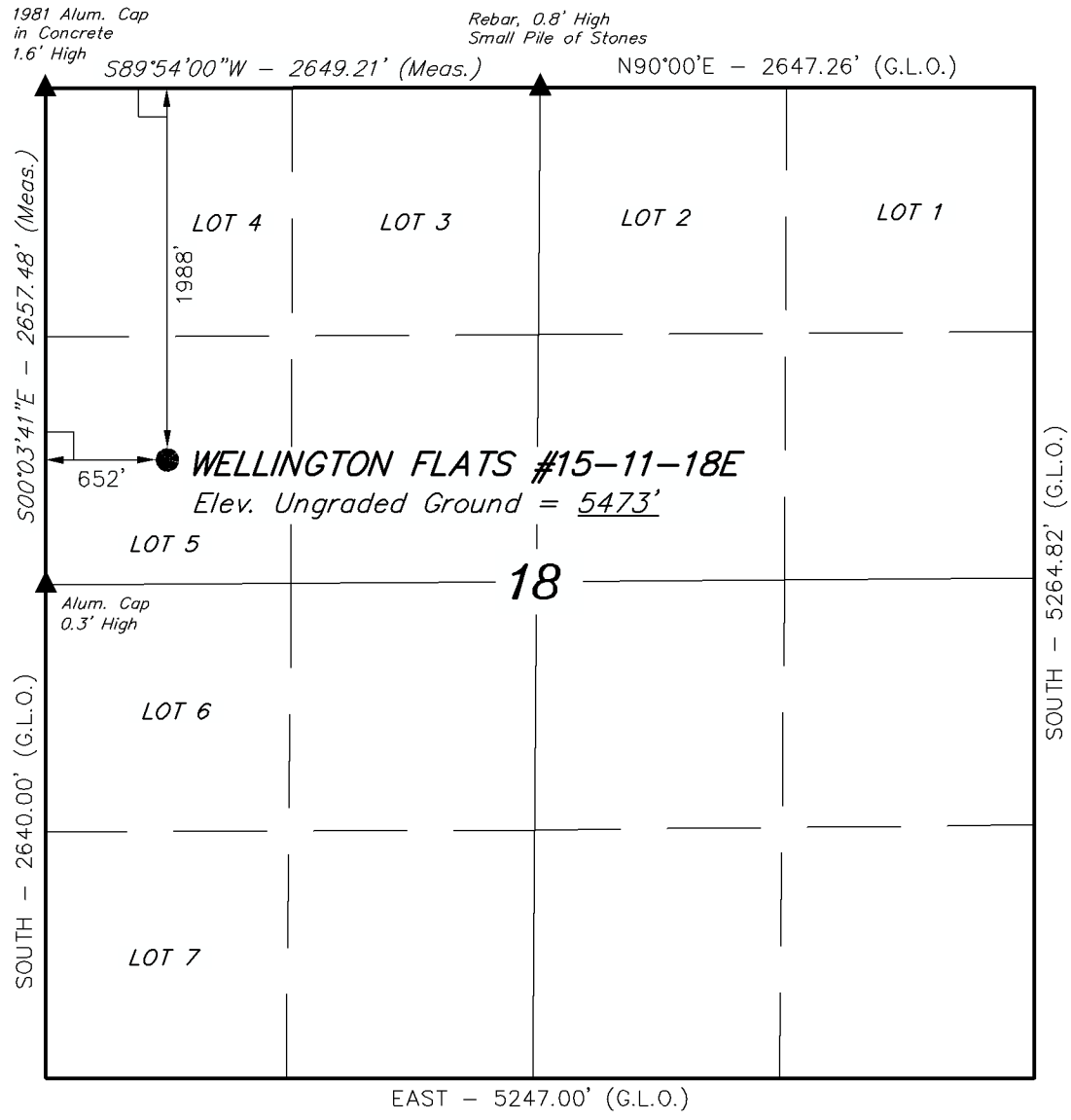
T15S, R11E, S.L.B.&M.



WHITING OIL & GAS CORP.

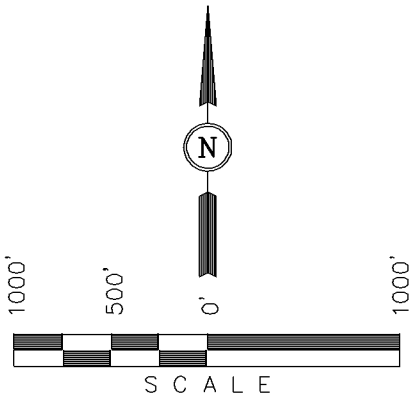
Well location, WELLINGTON FLATS #15-11-18E, located as shown in Lot 5 of Section 18, T15S, R11E, S.L.B.&M., Carbon County, Utah.

BASIS OF ELEVATION

SPOT ELEVATION AT A ROAD INTERSECTION LOCATED IN THE SW 1/4 OF SECTION 18, T15S, R11E, S.L.B.&M. TAKEN FROM THE WELLINGTON QUADRANGLE, UTAH, CARBON COUNTY, 7.5 MINUTE QUAD (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5455 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

05-04-12

STATE OF UTAH · REGISTERED LAND SURVEYOR · NO. 161319 · ROBERT L. KAY

LEGEND:

- ∟ = 90° SYMBOL
- ● = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

NAD 83 (SURFACE LOCATION)	
LATITUDE	39°31'20.48" (39.522356)
LONGITUDE	110°44'15.72" (110.737700)
NAD 27 (SURFACE LOCATION)	
LATITUDE	39°31'20.61" (39.522392)
LONGITUDE	110°44'13.15" (110.736986)

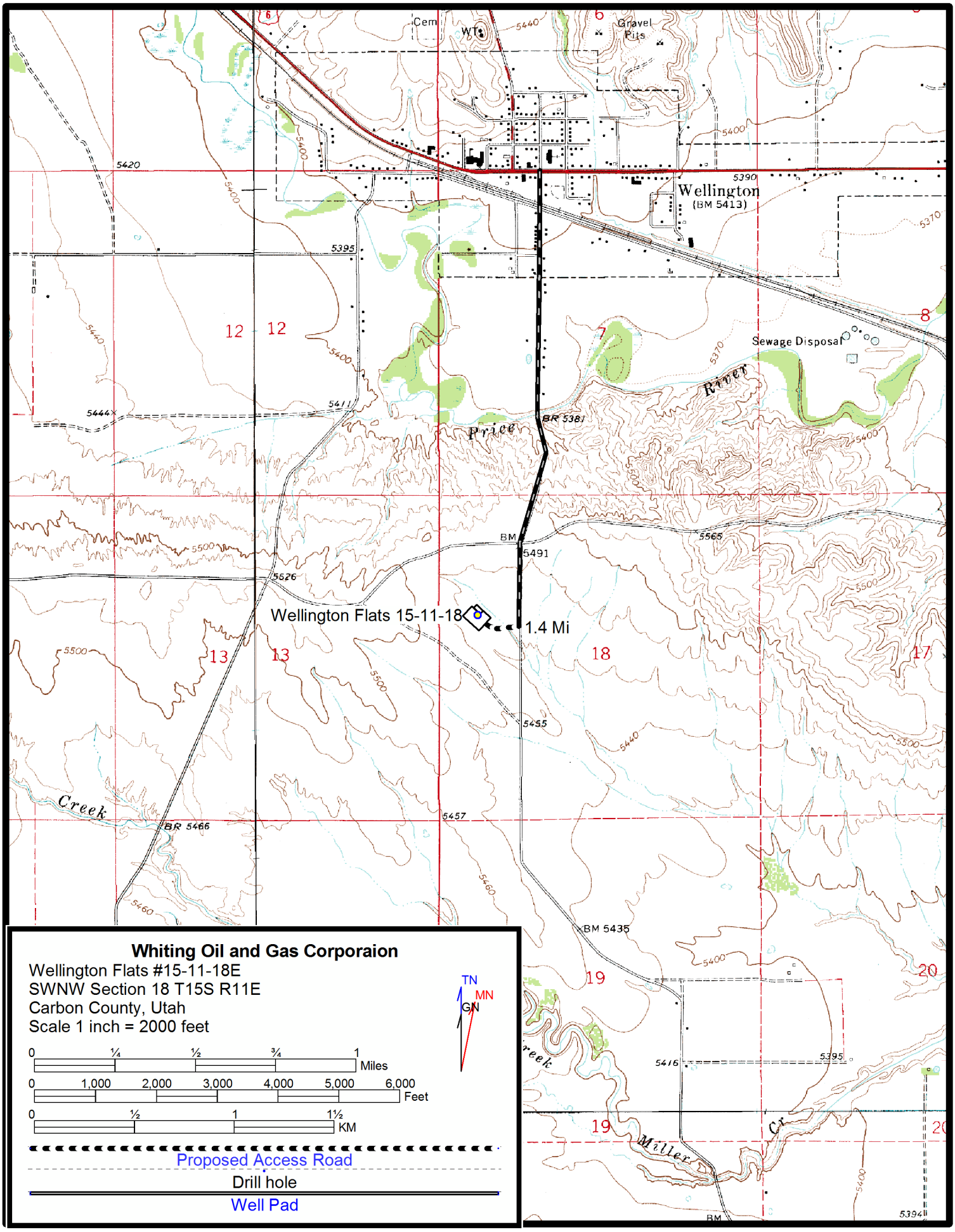
UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST – VERNAL, UTAH 84078
(435) 789-1017

SCALE	DATE SURVEYED:	DATE DRAWN:
1" = 1000'	04-12-12	04-13-12
PARTY: G.O. S.W. R.L.L.	REFERENCES: G.L.O. PLAT	
WEATHER: COOL	FILE: WHITING OIL & GAS CORP.	

API Well Number: 43007503470000

RECEIVED: May 24, 2012

API Well Number: 43007503470000



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Wellington Flats 15-11-18E
SWNW Sec. 18, T15S, R11E
Carbon County, Utah
State Minerals

Whiting Oil and Gas Corporation

Related Surface Information

1) **CURRENT SURFACE USE:** Livestock Grazing.

2) **PROPOSED SURFACE DISTURBANCE:**
   a) The road will be crown and ditch. Water wings will be constructed on the access road as needed.
   b) The topsoil will be windrowed and respread in the borrow area.
   c) New road to be constructed will be approximately 478 feet in length, 25 feet wide.
   d) All equipment and vehicles will be confined to the access road, pad and area specified in the APD.

3) **LOCATION OF EXISTING WELLS:**
   Existing oil, gas and water wells within one (1) mile radius of proposed well:
   Producing Wells = 0
   Plugged and Abandonedwells = 0
   Water Wells = see attached map and list

   Water for drilling will be obtained from the Town of Wellington, Utah municipal water supply.

4) **EXISTING/PROPOSED FACILITIES FOR PRODUCTIVE WELL:**
   a) There are no existing facilities that will be utilized for this well.
   b) Upgrade and maintain access roads and drainage control structures (e.g., culverts, drainage dips, ditching, etc.) as necessary to prevent soil erosion and accommodate safe, year-round traffic.

5) **CONSTRUCTION MATERIALS:**
Native soil from road and location will be used for construction materials along with gravel and/or scoria road base material. In the event that conditions should necessitate graveling of all or part of the access road and location, surfacing materials will be purchased from commercial suppliers in the marketing area.

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6) METHODS FOR HANDLING WASTE DISPOSAL:

a) The reserve pit will be designed to prevent the collection of surface runoff and will be constructed with a minimum of ½ the total depth below the original ground surface on the lowest point within the pit. The pit will be lined with a 9-mil polyethylene to prevent leakage of fluids. The liner will be rolled into place and secured at the ends, i.e. buried on top of the pit berms. Prior to use, the reserve pit will be fenced on three sides; the fourth side will be fenced at the time the rig is removed. Drilling fluids, cuttings and produced water will be contained in the reserve pit (trash will be placed in the trash cage). Fluids in the reserve pit will be allowed to evaporate prior to pit burial.

b) Garbage and other trash will be contained in a portable trash cage and hauled off the location to an authorized disposal site. Any trash on the pad will be cleaned up prior to the rig move off location and hauled to an authorized disposal site.

c) Sewage will be handled in Portable Toilets.

d) Produced water will be placed in the reserve pit for a period not to exceed ninety days after initial production. Any hydrocarbons produced during completion work will be contained in test tanks and removed from location at a later date.

e) Water from the reserve pit may be used for drilling of additional wells. The water will be trucked along access roads as approved in pertinent APD's.

7) ANCILLARY FACILITIES:

There will be no ancillary facilities associated with this project.

8) SURFACE RECLAMATION PLANS:

Backfilling of the pits will be done when dry. In the event of a dry hole, the location will be re-contoured, the topsoil will be distributed evenly over the entire location, and the seedbed prepared

a) Seed will be planted after September 15th, and prior to ground frost, or seed will be planted after the frost has left and before May 15th. Slopes to steep for machinery will be hand broadcast and raked with twice the specified amount of seed.

1. The construction program and design are on the attached cut, fill and cross sectional diagrams.
2. Prior to construction, all topsoil will be removed from the entire site and stockpiled. Topsoil for this site is the first 6 inches of soil materials.
3. After the location has been reshaped and after redistributing the topsoil, the operator will rip and scarify the drilling platform and access road on the contour, to a depth of at least 12 inches.

b) Rehabilitation will begin upon the completion of the drilling. Complete rehabilitation will depend on weather conditions and the amount of time required to dry the reserve pit.

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2. All rehabilitation work including seeding will be completed as soon as weather and the reserve pit conditions are appropriate.
3. Landowner will be contacted for rehabilitation requirements.

9) SURFACE OWNERSHIP:

State of Utah

10) OTHER INFORMATION:

a) The surface soil consists of clay, and silt.
b) Flora - vegetation consists of the following: Sagebrush, Juniper and prarie grasses.
c) Fauna - antelope, deer, coyotes, raptors, small mammals, and domestic grazing animals.
d) Current surface uses – Livestock grazing and mineral exploration and production.

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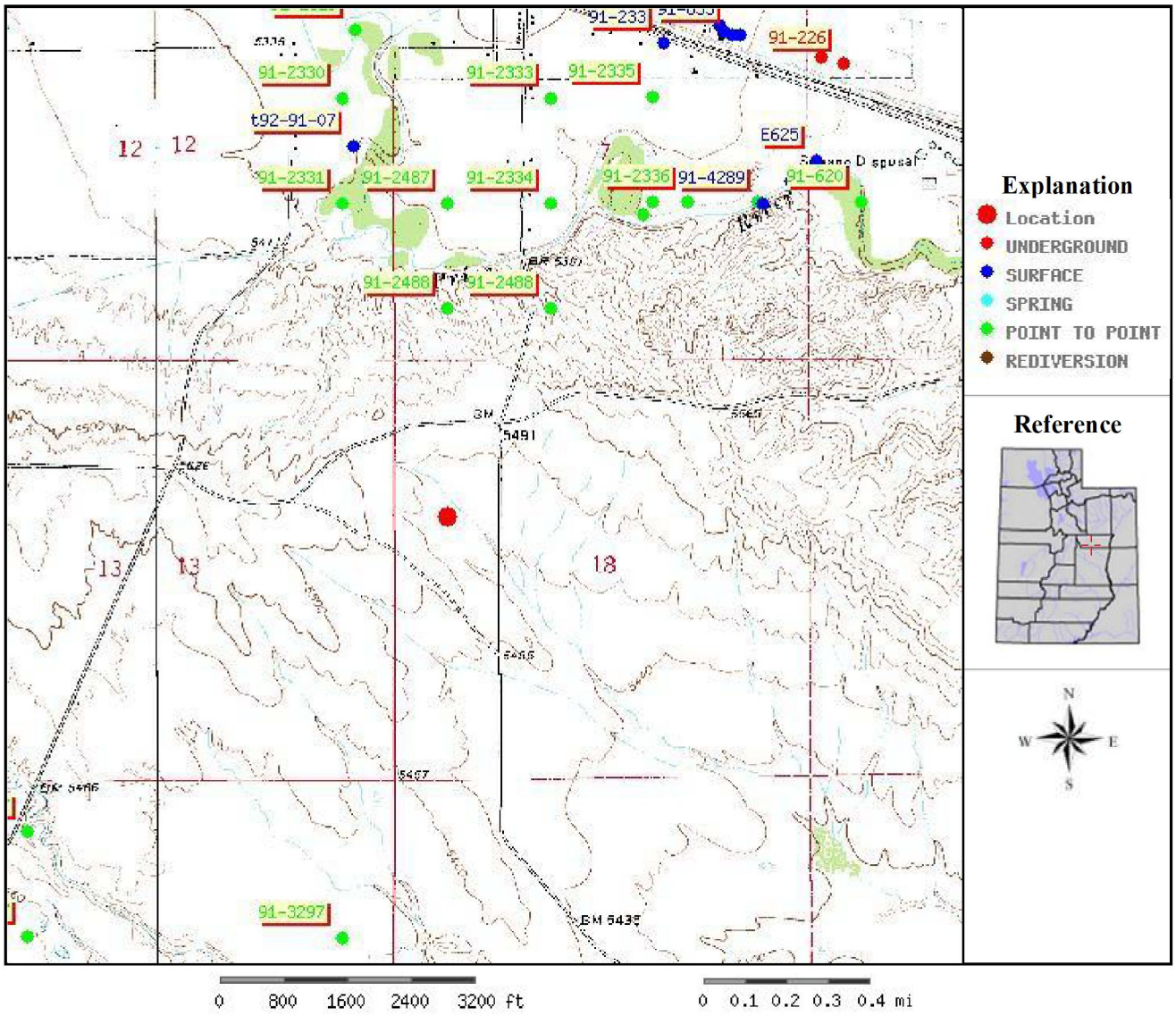
Utah Division of Water Rights

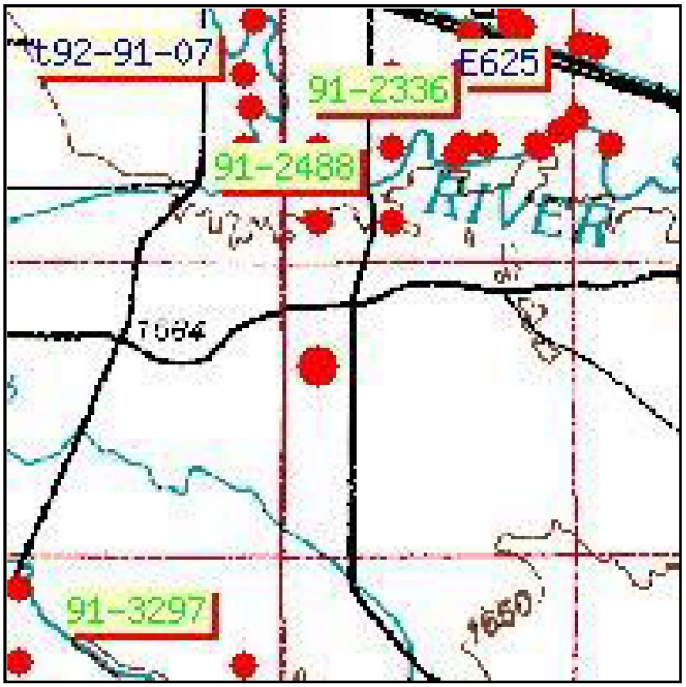


Point Location: S 1988 ft, E 652 ft, from the NW Corner, Section 18, Township 15S, Range 11E, SL B&M

Search all of Utah.gov »

Utah Division of Water Rights

Output Listing for Points of Diversion



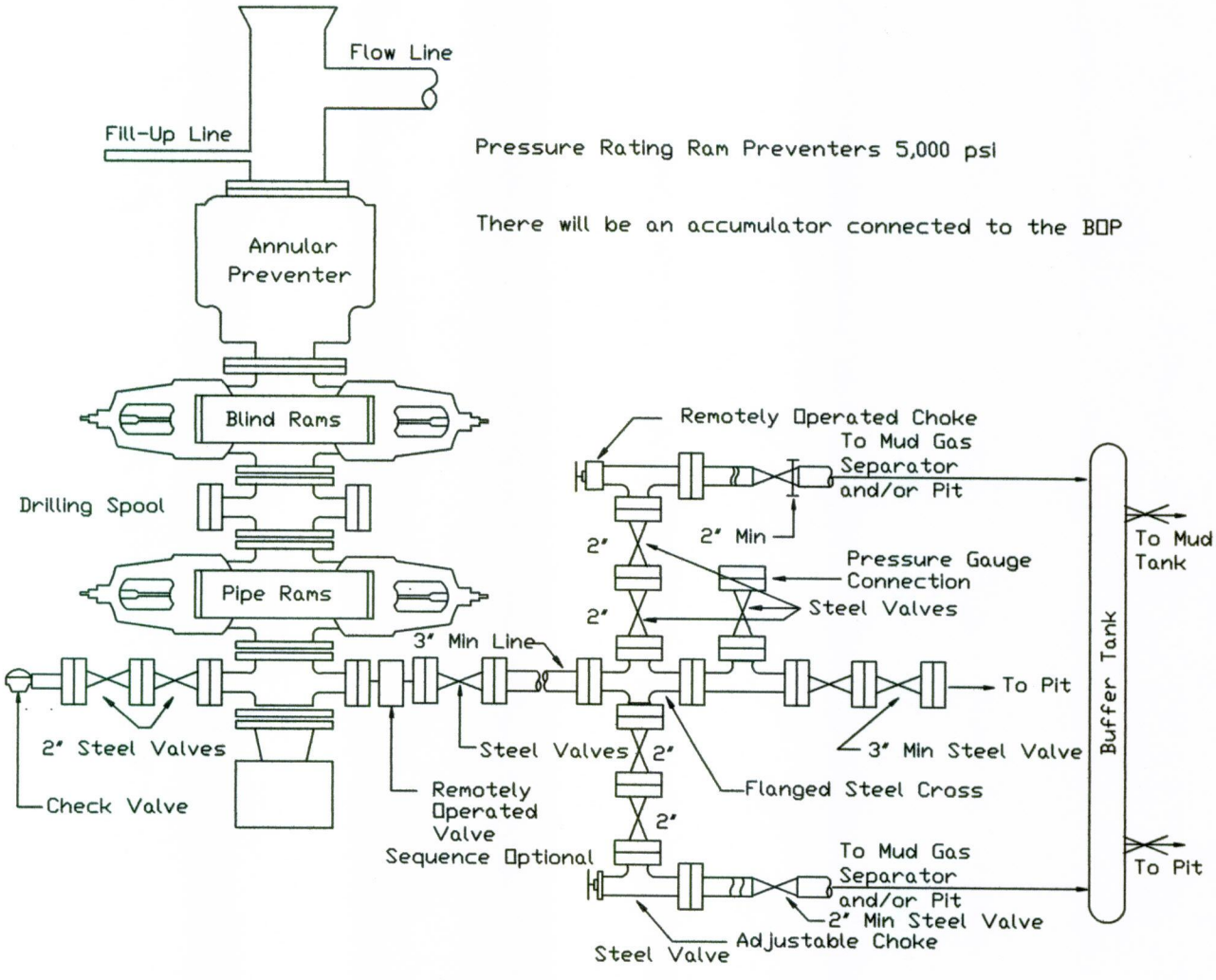
Water Rights

WR Number	Diversion Type/Location	Well Log	Status	Priority	Uses	CFS	ACFT	Owner Name
91-2327	Point to Point N660 W660 E4 12 15S 10E SL		P	18690000	S	0.000	0.000	WALTER N. DRAPER C/O ASA DRAPER
91-2329	Point to Point S1145 W510 NE 12 15S 10E SL		P	18690000	S	0.000	0.000	ALVIN AND GENIVEVE BLACKBURN BOX 56
91-2330	Point to Point N660 W660 E4 12 15S 10E SL		P	18690000	S	0.000	0.000	WALTER N. DRAPER C/O ASA DRAPER
91-2331	Point to Point N660 W660 E4 12 15S 10E SL		P	18690000	S	0.000	0.000	ROY AND ELLA CAMPBELL WELLINGTON UT 84542
91-2333	Point to Point N660 E1980 W4 07 15S 11E SL		P	18690000	S	0.000	0.000	JOHN J. THAYN WELLINGTON UT 84542
91-2334	Point to Point S660 E1980 W4 07		P	18690000	S	0.000	0.000	MELVILLE BRANCH WELLINGTON UT 84542

	15S 11E SL					
91-2335	Point to Point	P	18690000 S	0.000	0.000	WILLIAM E. & JOAN SNYDER
	S1980 E660 N4 07 15S 11E SL					BOX 16
91-2336	Point to Point	P	18690000 S	0.000	0.000	JACK HANNA
	S660 W1980 E4 07 15S 11E SL					886 NORTH 5TH EAST
91-2337	Point to Point	P	18690000 S	0.000	0.000	EDWIN C. & ANNIE SNYDER
	S660 W1535 E4 07 15S 11E SL					BOX 16
91-2487	Point to Point	P	18690000 S	0.000	0.000	JAMES W. & MARIETTA HENRIE
	S660 E660 W4 07 15S 11E SL					C/O JOHN THAYN
91-2488	Point to Point	P	18690000 S	0.000	0.000	PRICE FIELD OFFICE USA BUREAU OF LAND MANAGEMENT
	N660 E660 SW 07 15S 11E SL					125 SOUTH 600 WEST
91-3296	Point to Point	P	18690000 S	0.000	0.000	MARJORIE J. BRYNER
	N660 E660 W4 24 15S 10E SL					C/O MARJORIE J. BRYNER, TRUSTEE
91-3297	Point to Point	P	18690000 S	0.000	0.000	LYLE B. BRYNER
	N660 E660 W4 24 15S 10E SL					PRICE UT 84501
91-619	Point to Point	P	18690000 S	0.000	0.000	MONT BLACKBURN
	S660 W660 E4 07 15S 11E SL					WELLINGTON UT 84542
91-620	Point to Point	P	18690000 S	0.000	0.000	LESLIE BLACKBURN
	S660 W660 E4 07 15S 11E SL					WELLINGTON UT 84542
91-1727	Point to Point	P	18690000 S	0.000	0.000	JAMES W. & MARIETTA HENRIE
	S660 E660 NW 24 15S 10E SL					WELLINGTON UT 84542
91-2327	Point to Point	P	18690000 S	0.000	0.000	WALTER N. DRAPER
	N660 W660 E4 12 15S 10E SL					C/O ASA DRAPER
91-2330	Point to Point	P	18690000 S	0.000	0.000	WALTER N. DRAPER
	N660 W660 E4 12 15S 10E SL					C/O ASA DRAPER
91-2331	Point to Point	P	18690000 S	0.000	0.000	ROY AND ELLA CAMPBELL
	S660 W660 E4 12 15S 10E SL					WELLINGTON UT 84542
91-2333	Point to Point	P	18690000 S	0.000	0.000	JOHN J. THAYN
	N660 E1980 W4 07 15S 11E SL					WELLINGTON UT 84542
91-2334	Point to Point	P	18690000 S	0.000	0.000	MELVILLE BRANCH
	S660 E1980 W4 07 15S 11E SL					WELLINGTON UT 84542
91-2335	Point to Point	P	18690000 S	0.000	0.000	WILLIAM E. & JOAN SNYDER
	S820 W2100 E4 07 15S 11E SL					BOX 16
91-2336	Point to Point	P	18690000 S	0.000	0.000	JACK HANNA
	S660 W1535 E4 07					

	15S 11E SL					886 NORTH 5TH EAST
91-2337	Point to Point	P	18690000 S	0.000	0.000	EDWIN C. & ANNIE SNYDER
	S660 W660 E4 07 15S 11E SL					BOX 16
91-2487	Point to Point	P	18690000 S	0.000	0.000	JAMES W. & MARIETTA HENRIE
	S660 E660 W4 07 15S 11E SL					C/O JOHN THAYN
91-2488	Point to Point	P	18690000 S	0.000	0.000	PRICE FIELD OFFICE USA BUREAU OF LAND MANAGEMENT
	N660 W660 S4 07 15S 11E SL					125 SOUTH 600 WEST
91-3296	Point to Point	P	18690000 S	0.000	0.000	MARJORIE J. BRYNER
	N660 W660 E4 24 15S 10E SL					C/O MARJORIE J. BRYNER, TRUSTEE
91-3297	Point to Point	P	18690000 S	0.000	0.000	LYLE B. BRYNER
	N660 W660 E4 24 15S 10E SL					PRICE UT 84501
91-619	Point to Point	P	18690000 S	0.000	0.000	MONT BLACKBURN
	S660 E660 W4 08 15S 11E SL					WELLINGTON UT 84542
91-620	Point to Point	P	18690000 S	0.000	0.000	LESLIE BLACKBURN
	S660 E660 W4 08 15S 11E SL					WELLINGTON UT 84542
91-117	Surface	P	19361221 O	0.172	0.000	MARIANI AIR PRODUCTS INC.
	S1170 W1060 NE 07 15S 11E SL					614 WEST 600 SOUTH
91-202	Surface	P	19570126 O	0.280	0.000	MARIANI AIR PRODUCTS INC.
	S1090 W1120 NE 07 15S 11E SL					614 WEST 500 SOUTH
91-226	Underground	P	19560912 O	0.223	0.000	EUREKA ENERGY COMPANY
	S1495 E160 NW 08 15S 11E SL					77 BEALE STREET
91-226	Underground	P	19560912 O	0.223	0.000	EUREKA ENERGY COMPANY
	S1570 E455 NW 08 15S 11E SL					77 BEALE STREET
91-233	Surface	P	19570314 DI	0.015	0.000	MILTON WILSON
	S1310 E800 N4 07 15S 11E SL					WELLINGTON UT 84542
91-4122	Surface	P	19740513 IS	1.000	0.000	JANICE A. HAMILTON
	S390 W233 E4 07 15S 11E SL					BOX 7
91-4289	Surface	T	19820915 OX	500.000	12000.000	AMOCO PRODUCTION COMPANY
	N2000 W600 SE 07 15S 11E SL					C/O JEFF ADAMS
91-4826	Surface	P	19920629	0.000	2.000	PRICE RIVER WATER USER`S ASSOCIATION
	N50 W525 E4 12 15S 10E SL					375 SOUTH CARBON AVENUE A-10
91-832	Surface	P	19570126 O	0.280	0.000	MARIANI AIR PRODUCTS INC.
	S1210 W860 NE 07 15S 11E SL					614 WEST 600 SOUTH

91-833	Surface S1200 W960 NE 07 15S 11E SL	P	19361221 O	0.146	0.000	MARIANI AIR PRODUCTS INC. UT
a16868	Surface N50 W525 E4 12 15S 10E SL	T	19920629 I	0.000	2.000	JOHN R. & MARILYN C. REVA ROUTE 1 BOX 202A
t92-91-07	Surface N50 W525 E4 12 15S 10E SL	T	19920629 I	0.000	2.000	JOHN R. & MARILYN C. REVA ROUTE 1 BOX 202A
E625	Surface S120 E100 W4 08 15S 11E SL	A	19730306 I	0.000	60.000	DONALD AND JANICE A. HAMILTON P.O. BOX #7



Pressure Rating Ram Preventers 5,000 psi

There will be an accumulator connected to the BOP

The location of the rams, drilling spool (if used) and the size and location of the valves may vary depending on the rig used. However, all equipment will meet BLM and Utah Division of Oil, Gas and Mining Specifications.

H & B PETROLEUM CONSULTANTS

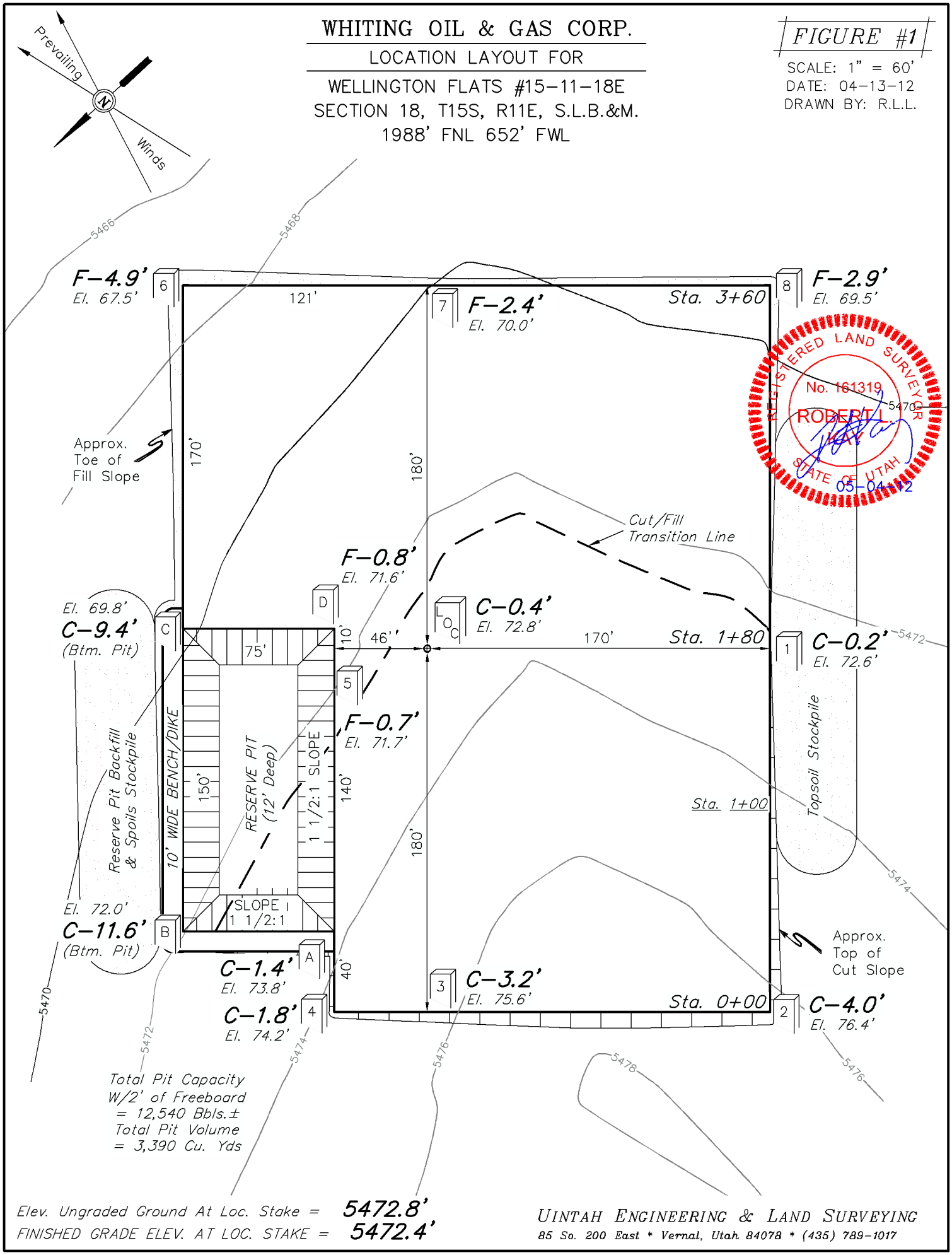
WHITING OIL & GAS CORP.

LOCATION LAYOUT FOR

WELLINGTON FLATS #15-11-18E
SECTION 18, T15S, R11E, S.L.B.&M.
1988' FNL 652' FWL

FIGURE #1

SCALE: 1" = 60'
DATE: 04-13-12
DRAWN BY: R.L.L.



REGISTERED LAND SURVEYOR
No. 161319
ROBERT L. KAY
STATE OF UTAH
05-04-12

Elev. Ungraded Ground At Loc. Stake = 5472.8'
FINISHED GRADE ELEV. AT LOC. STAKE = 5472.4'

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

RECEIVED: May 24, 2012

1" = 40'
X-Section Scale
1" = 100'

DATE: 04-13-12
DRAWN BY: R.L.L.

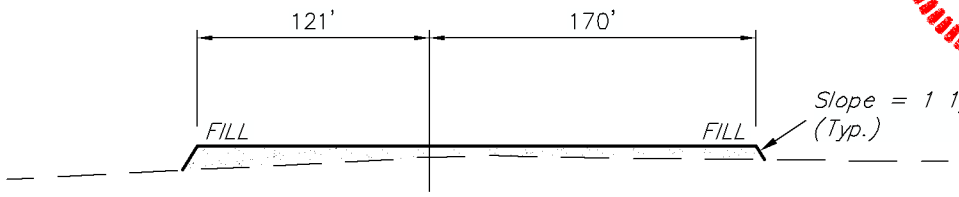
WHITING OIL & GAS CORP.

TYPICAL CROSS SECTIONS FOR

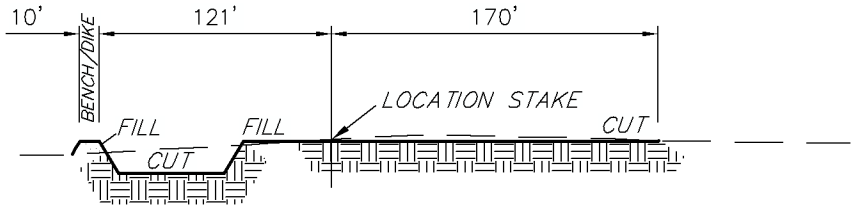
WELLINGTON FLATS #15-11-18E
SECTION 18, T15S, R11E, S.L.B.&M.
1988' FNL 652' FWL

FIGURE #2

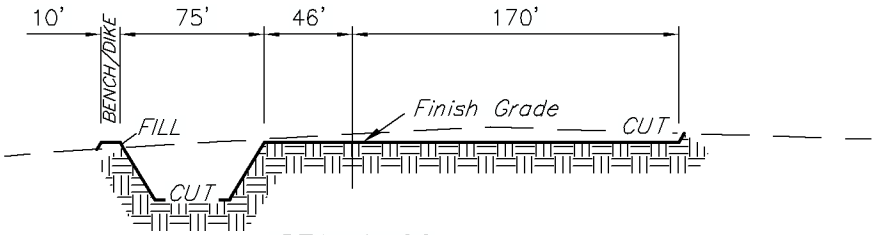
REGISTERED LAND SURVEYOR
No. 161319
ROBERT L.
STATE OF UTAH
05-04-12



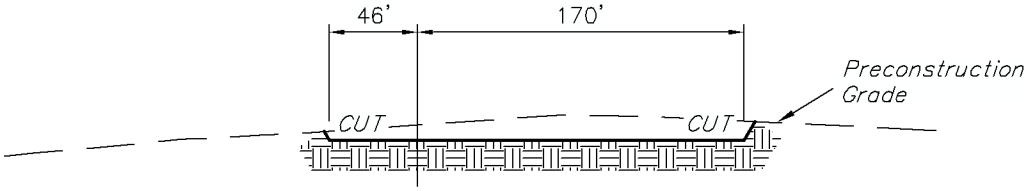
STA. 3+60



STA. 1+80



STA. 1+00



STA. 0+00

NOTE:
Topsoil should not be Stripped Below Finished Grade on Substructure Area.

APPROXIMATE ACREAGES
WELL SITE DISTURBANCE = ± 2.891 ACRES

* NOTE:
FILL QUANTITY INCLUDES 5% FOR COMPACTION

APPROXIMATE YARDAGES

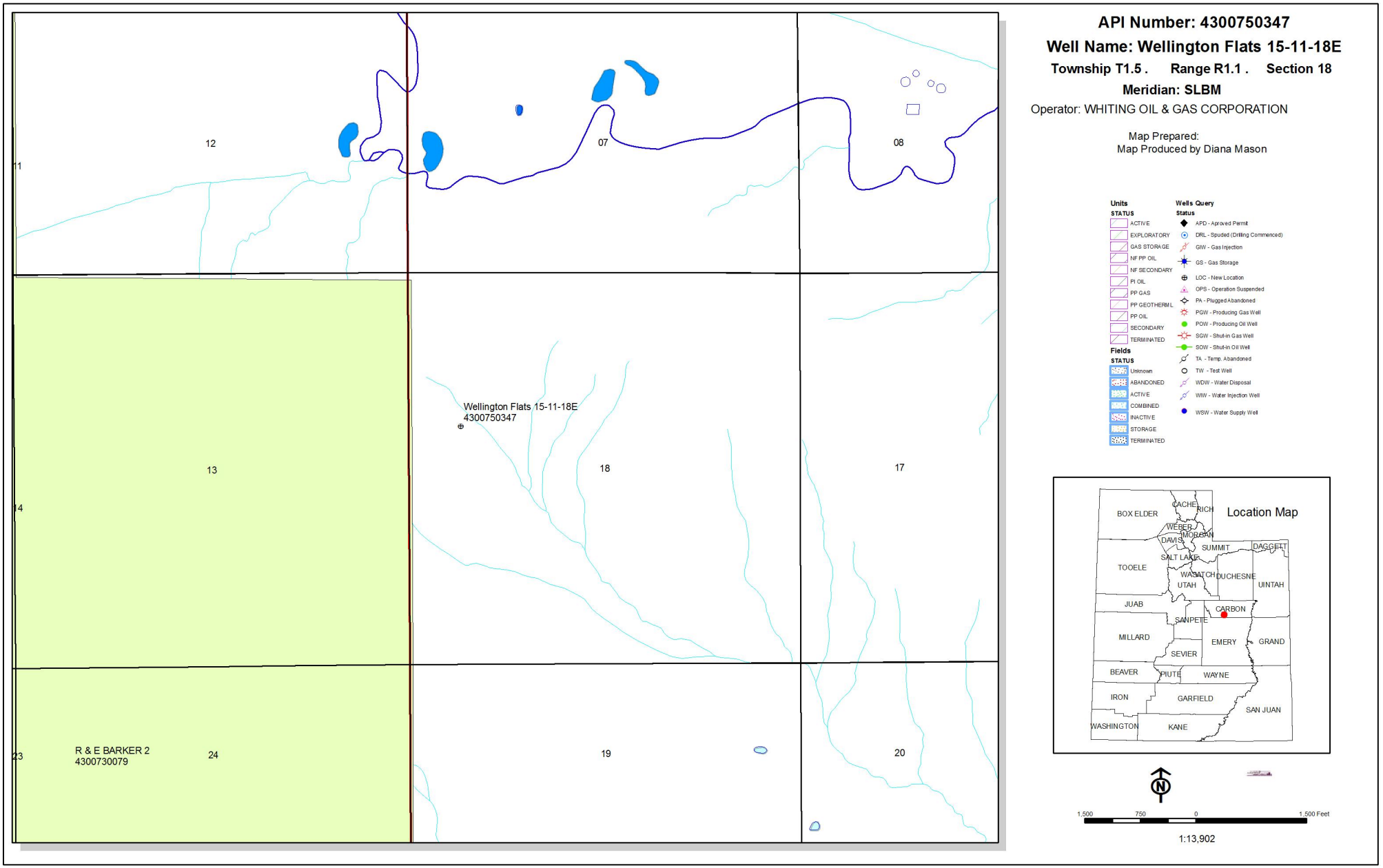
(6") Topsoil Stripping	=	2,030 Cu. Yds.
Remaining Location	=	5,990 Cu. Yds.
TOTAL CUT	=	8,020 CU. YDS.
FILL	=	4,290 CU. YDS.

EXCESS MATERIAL	=	3,730 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	=	3,730 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	=	0 Cu. Yds.

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

RECEIVED: May 24, 2012

API Well Number: 43007503470000



RECEIVED: June 05, 2012

From: Jim Davis
To: APD APPROVAL
CC: ld_brown@bresnan.net
Date: 9/6/2012 11:08 AM
Subject: Wellington Flats 15-11-18E approval

The following well has been approved by SITLA including arch clearance. The paleo requirement was waived by SITLA and the Utah geological survey.

Wellington Flats 15-11-18E (4300750347).

Thanks.
-Jim

Jim Davis
Utah Trust Lands Administration
jimdavis1@utah.gov
Phone: (801) 538-5156

RECEIVED: September 06, 2012

API Well Number: 43007503470000

BOPE REVIEW WHITING OIL & GAS CORPORATION ellington Flats 15-11-18E 43007503470000

Well Name	WHITING OIL & GAS CORPORATION Wellington Flats 15-11-18E 430			
String	SURF	I1	PROD	
Casing Size(")	13.375	9.625	7.000	
Setting Depth (TVD)	1500	4800	8890	
Previous Shoe Setting Depth (TVD)	0	1500	4800	
Max Mud Weight (ppg)	9.0	9.4	9.4	
BOPE Proposed (psi)	0	5000	5000	
Casing Internal Yield (psi)	2730	6870	8160	
Operators Max Anticipated Pressure (psi)	3849		8.3	

Calculations	SURF String	13.375	"	
Max BHP (psi)	.052*Setting Depth*MW=	702		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	522	NO	water, gel lime sweeps
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	372	NO	
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	372	NO	Reasonable depth
Required Casing/BOPE Test Pressure=		1500	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi	*Assumes 1psi/ft frac gradient

Calculations	I1 String	9.625	"	
Max BHP (psi)	.052*Setting Depth*MW=	2346		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	1770	YES	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	1290	YES	OK
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	1620	NO	OK
Required Casing/BOPE Test Pressure=		4800	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		1500	psi	*Assumes 1psi/ft frac gradient

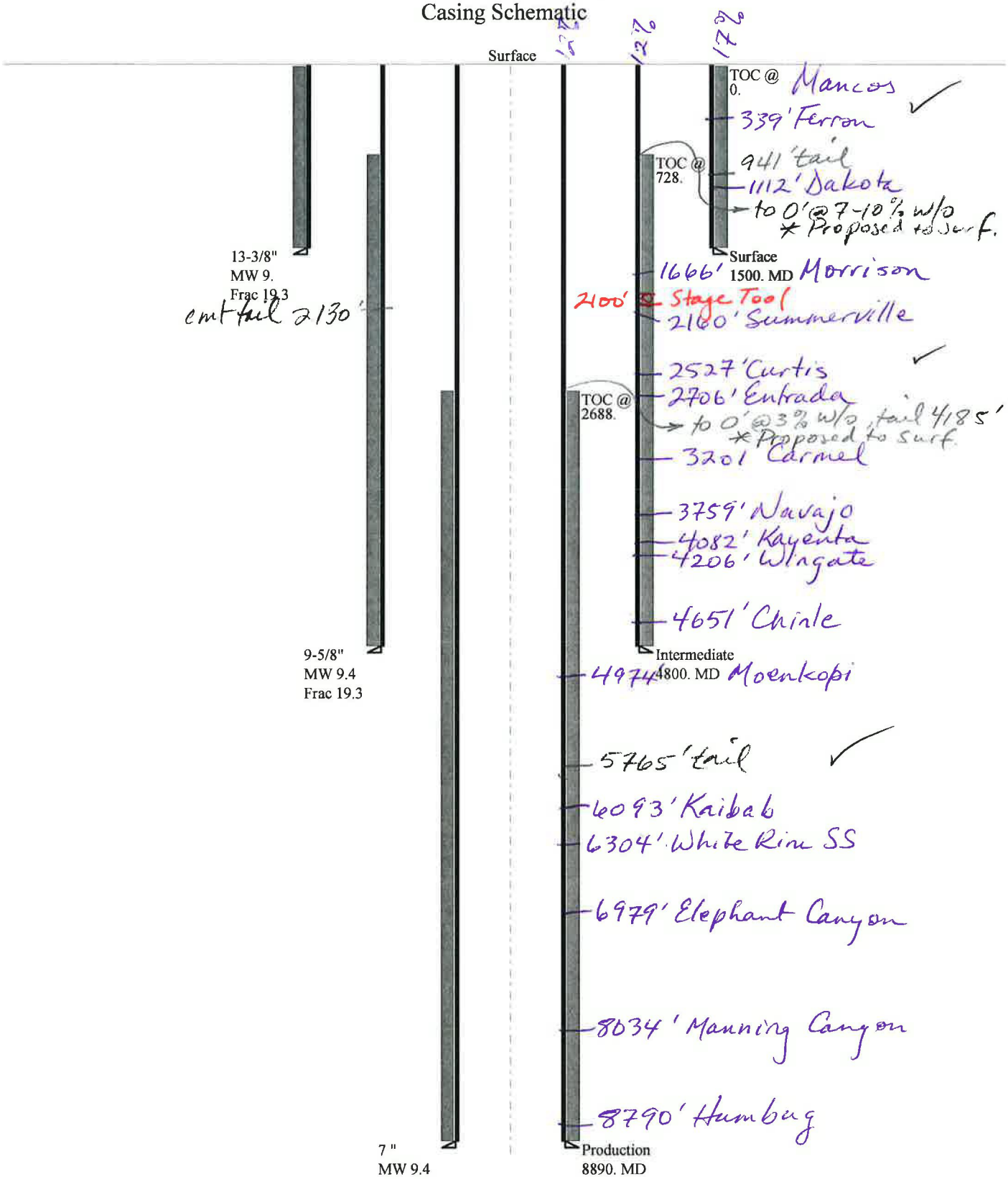
Calculations	PROD String	7.000	"	
Max BHP (psi)	.052*Setting Depth*MW=	4345		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	3278	YES	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	2389	YES	OK
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	3445	YES	OK
Required Casing/BOPE Test Pressure=		5000	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		4800	psi	*Assumes 1psi/ft frac gradient

Calculations	String		"	
Max BHP (psi)	.052*Setting Depth*MW=			
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO	
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO	
Required Casing/BOPE Test Pressure=			psi	
*Max Pressure Allowed @ Previous Casing Shoe=			psi	*Assumes 1psi/ft frac gradient

RECEIVED: September 12, 2012

43007503470000 Wellington Flats 15-11-18E

Casing Schematic



Well name:	**43007503470000 Wellington Flats 15-11-18E**
Operator:	**WHITING OIL & GAS CORPORATION**
String type:	Surface
Project ID:	43-007-50347
Location:	CARBON COUNTY

Design parameters:

Collapse
Mud weight: 9.000 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 1,320 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 1,500 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.70 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on air weight.
Neutral point: 1,300 ft

Environment:
H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 95 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: Surface

Non-directional string.

Re subsequent strings:
Next setting depth: 4,800 ft
Next mud weight: 9.400 ppg
Next setting BHP: 2,344 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 1,500 ft
Injection pressure: 1,500 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	1500	13.375	54.50	J-55	ST&C	1500	1500	12.49	18612

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	701	1130	1.611	1500	2730	1.82	81.8	514	6.29 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: September 7,2012
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 1500 ft, a mud weight of 9 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	**43007503470000 Wellington Flats 15-11-18E**
Operator:	**WHITING OIL & GAS CORPORATION**
String type:	Intermediate
Project ID:	43-007-50347
Location:	CARBON COUNTY

Design parameters:

Collapse
Mud weight: 9.400 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 2,385 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 3,441 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 4,123 ft

Environment:
H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 141 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,000 ft

Cement top: 728 ft

Non-directional string.

Re subsequent strings:
Next setting depth: 8,890 ft
Next mud weight: 9.400 ppg
Next setting BHP: 4,341 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 4,800 ft
Injection pressure: 4,800 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	4800	9.625	47.00	L-80	LT&C	4800	4800	8.625	80689

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	2344	4760	2.031	3441	6870	2.00	225.6	893	3.96 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: September 7,2012
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 4800 ft, a mud weight of 9.4 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	**43007503470000 Wellington Flats 15-11-18E**
Operator:	**WHITING OIL & GAS CORPORATION**
String type:	Production
Project ID:	43-007-50347
Location:	CARBON COUNTY

Design parameters:

Collapse
Mud weight: 9.400 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 2,385 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 4,341 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 7,625 ft

Environment:
H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 198 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 2,688 ft

Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	8890	7	29.00	L-80	LT&C	8890	8890	6.059	96577

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	4341	7020	1.617	4341	8160	1.88	257.8	587	2.28 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: September 7,2012
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 8890 ft, a mud weight of 9.4 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

ON-SITE PREDRILL EVALUATION
Utah Division of Oil, Gas and Mining

Operator WHITING OIL & GAS CORPORATION
Well Name Wellington Flats 15-11-18E
API Number 43007503470000 **APD No** 6056 **Field/Unit** UNDESIGNATED
Location: 1/4,1/4 SWNW **Sec** 18 **Tw** 15.0S **Rng** 11.0E 1988 FNL 652 FWL
GPS Coord (UTM) **Surface Owner**

Participants

M. Jones (UDOGM), Larry Brown (Whitting consultant), Kirt Tatton (Wellington City), Jim Davis and Jeff Conley (SITLA).

Regional/Local Setting & Topography

Location is staked just south of Ridge Road and just west of the lower Miller Creek Road within Wellington City limits in Carbon County, Utah. The topography is relatively flat with a gentle overall slope towards the southeast. Drainage in the immediate and surrounding area will eventually make their way to Miller Creek and then to the Price River further to the east.

Surface Use Plan

Current Surface Use
Grazing
Wildlfe Habitat

New Road Miles	Well Pad	Src Const Material	Surface Formation
0.09	**Width** 301 **Length** 360	Onsite	

Ancillary Facilities N

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

typical mancos desert shrubs and grasses. Sparse vegetation as the location is in "light" mancos shale soils.

Soil Type and Characteristics

mancos shale clay

Erosion Issues Y

Erosion can occur upon disturbance of the soils.

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? Y

RECEIVED: September 13, 2012

Diversion of natural drainages should be provided around and away from well pad and access road.

Berm Required? N

No pad berm required however it was discussed at length that the well pad be very specifically defined as it is relatively flat surroundings and will be easy for serfice company's to be outside of the permitted pad boundaries which was heavily discouraged

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y **Paleo Potental Observed?** N **Cultural Survey Run?** Y **Cultural Resources?** N

Reserve Pit

Site-Specific Factors		Site Ranking
Distance to Groundwater (feet)	>200	0
Distance to Surface Water (feet)	>1000	0
Dist. Nearest Municipal Well (ft)	>5280	0
Distance to Other Wells (feet)	>1320	0
Native Soil Type	Low permeability	0
Fluid Type	TDS>5000 and	10
Drill Cuttings	Normal Rock	0
Annual Precipitation (inches)	10 to 20	5
Affected Populations		
Presence Nearby Utility Conduits	Not Present	0
	Final Score	15 2 Sensitivity Level

Characteristics / Requirements

Dugout earthen pit (150'x75'x12'). The site is in mancos clay soils with no nearby drainages to speak of and no presence of surface waters or underground acquafers. Pit ranking criteria does not require a liner for this situation therefore a pit liner is not stipulated or required by the Division for this particular well pad. SITLA was in agreeement during the pre-site. If the operator still desires to use a pit liner that will be fine, but no specific stipulation will be attached from the Division to do so.

Closed Loop Mud Required? N **Liner Required?** N **Liner Thickness** **Pit Underlayment Required?** N

Other Observations / Comments

Mark Jones	8/29/2012
Evaluator	**Date / Time**

RECEIVED: September 13, 2012

Application for Permit to Drill
Statement of Basis
Utah Division of Oil, Gas and Mining

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
6056	43007503470000	LOCKED	OW	S	No
Operator	WHITING OIL & GAS CORPORATION		**Surface Owner-APD Unit**		
Well Name	Wellington Flats 15-11-18E				
Field	UNDESIGNATED		**Type of Work**	DRILL	
Location	SWNW 18 15S 11E S 1988 FNL 652 FWL GPS Coord (UTM) 522556E 4374762N				

Geologic Statement of Basis

The proposed well is to be drilled to a total depth of 8,890' with surface casing set from 0'-1,500'. The surface string will be drilled using fresh water and gel/lime sweeps. Within a 10,000' radius from the proposed well there are several shallow subsurface groundwater rights which are all used for industrial purposes. The poorly permeable soil has been formed from the erosion of the Blue Gate Member of the Mancos Shale. Units of the Ferron Sandstone Member of the Mancos Shale are present at the near surface or subsurface, these strata are included within the interval to be protected by the surface casing string. The operator should be aware of the likelihood of these units being water saturated and to respond to protecting these zones as necessary. Proposed surface casing and cement should adequately isolate any shallow zones containing water.

Ammon McDonald	9/10/2012
APD Evaluator	**Date / Time**

Surface Statement of Basis

Location is staked just south of Ridge Road and just west of the lower Miller Creek Road within Wellington City limits in Carbon County, Utah. The topography is relatively flat with a gentle overall slope towards the southeast. Drainage in the immediate and surrounding area will eventually make their way to Miller Creek and then to the Price River further to the east. Dugout earthen pit (150'x75'x12') is proposed. The site is in Mancos clay soils with no nearby drainages to speak of and no presence of surface waters or underground aquifers. Pit ranking criteria does not require a liner for this situation therefore a pit liner is not stipulated or required by the Division for this particular well pad. SITLA was in agreement during the pre-site. If the operator still desires to use a pit liner that will be fine, but no specific stipulation will be attached from the Division to do so. The well site shall be defined by some means by the operator once construction is completed in order to confine all well activities specifically to the well pad and the legal Right-of-Way for the road. Traffic, parking, or storage of equipment or materials will not be allowed off of well pad. The access shall be surfaced with rock for at least the first 350' beginning at the county road encroachment and continuing west towards the well pad. This area is a small but very wide drainage area and will turn into a mud bog with just one storm event.

Mark Jones	8/29/2012
Onsite Evaluator	**Date / Time**

Conditions of Approval / Application for Permit to Drill

Category	Condition

RECEIVED: September 13, 2012

Surface	Drainages adjacent to the proposed pad shall be diverted around the location.
Surface	Traffic, parking, or storage of equipment or materials will not be allowed off of well pad. Operations will be confined to the defined well pad and the legal ROW.
Surface	The access shall be surfaced with rock for at least the first 350' beginning at the county road encroachment into the well pad. This area is a small but very wide drainage area and will turn into a mud bog with just one storm.

RECEIVED: September 13, 2012

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 5/24/2012 **API NO. ASSIGNED:** 43007503470000
WELL NAME: Wellington Flats 15-11-18E
OPERATOR: WHITING OIL & GAS CORPORATION (N2680) **PHONE NUMBER:** 307 237-2310
CONTACT: Larry Brown

PROPOSED LOCATION: SWNW 18 150S 110E **Permit Tech Review:** ✔

SURFACE: 1988 FNL 0652 FWL **Engineering Review:** ✔

BOTTOM: 1988 FNL 0652 FWL **Geology Review:** ✔

COUNTY: CARBON
LATITUDE: 39.52221 **LONGITUDE:** -110.73758
UTM SURF EASTINGS: 522556.00 **NORTHINGS:** 4374762.00
FIELD NAME: UNDESIGNATED
LEASE TYPE: 3 - State
LEASE NUMBER: ML-49795 **PROPOSED PRODUCING FORMATION(S):** HUMBUG
SURFACE OWNER: 3 - State **COALBED METHANE:** NO

RECEIVED AND/OR REVIEWED:

- ✔ **PLAT**
- ✔ **Bond:** STATE - RLB-0004585
- ☐ **Potash**
- ☐ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ✔ **Water Permit:** Municipal Water from Wellington
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ☐ **Intent to Commingle**

Commingling Approved

LOCATION AND SITING:

- ☐ **R649-2-3.**

Unit:

- ☐ **R649-3-2. General**
- ☐ **R649-3-3. Exception**
- ✔ **Drilling Unit**

Board Cause No: R649-3-2
Effective Date:
Siting:

- ☐ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:
5 - Statement of Basis - bhill
23 - Spacing - dmason
25 - Surface Casing - hmacdonald

RECEIVED: September 13, 2012

GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

****

Well Name: Wellington Flats 15-11-18E
API Well Number: 43007503470000
Lease Number: ML-49795
Surface Owner: STATE
Approval Date: 9/13/2012

Issued to:
WHITING OIL & GAS CORPORATION, 1700 Broadway, Suite 2300, Denver, CO 80290

Authority:
Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of R649-3-2. The expected producing formation or pool is the HUMBUG Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:
This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

General:
Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:
This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

Additional Approvals:
The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan - contact Dustin Doucet
- Significant plug back of the well - contact Dustin Doucet
- Plug and abandonment of the well - contact Dustin Doucet

Notification Requirements:
The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well - contact Carol Daniels
  OR
  submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website
  at http://oilgas.ogm.utah.gov
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing - contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program
  - contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well - contact Dan Jarvis

Contact Information:
The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office
  801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
  801-231-8956 - after office hours

Reporting Requirements:
All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) - due within 5 days of spudding the well
- Monthly Status Report (Form 9) - due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) - due prior to implementation
- Written Notice of Emergency Changes (Form 9) - due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) - due prior to implementation
- Report of Water Encountered (Form 7) - due within 30 days after completion
- Well Completion Report (Form 8) - due within 30 days after completion or plugging

Approved By:

Approved By:

For John Rogers
Associate Director, Oil & Gas

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-49795

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Wellington Flats 15-11-18E

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER:
43007503470000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER:
303 390-4095 Ext

9. FIELD and POOL or WILDCAT:
UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
1988 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWNW Section: 18 Township: 15.0S Range: 11.0E Meridian: S

COUNTY:
CARBON

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 11/13/2012	☐ ACIDIZE	✓ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER: Change Surf Casing Depth

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Whiting Oil and Gas Corporation is requesting to set the 13-3/8" surface Casing string at a shallower depth than permitted for the well. The original setting depth was intended to be 1500' md. While drilling out the 17-1/2" surface casing hole , the Dakota Formation was discovered to be shallower than expected at 850' md. We are requesting to set the 13-3/8" surface casing string to 1129' md. The adjusted casing will be cemented with 1245 sx cement as per the attached cementing proposal. Dustin Doucet of the UDOGM gave verbal approval for this procedure on 11-13-12.

Approved by the Utah Division of Oil, Gas and Mining

Date: November 15, 2012

By: Dustin K Doucet

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Scott Webb	303 390-4095	Regulatory & Permitting Manager
SIGNATURE		**DATE**
N/A		11/14/2012

RECEIVED: Nov. 14, 2012

HALLIBURTON

Whiting Oil & Gas Corp Ebusiness
Do Not Mail - 1700 Broadway
Denver, Colorado 80290

Wellington Flats 15-11-18E
Hook Field
Carbon County, Utah
United States of America
S:18 T:15S R:11E

Cement Recommendation

Prepared for: Mr. Benjamin Betts

November 13, 2012
Version: 2

Submitted by:
Matthew Fling
Halliburton
1125 17th Street Ste 1900
Denver, Colorado
303-899-4734

HALLIBURTON

RECEIVED: Nov. 14, 2012

HALLIBURTON

Halliburton appreciates the opportunity to present this cost estimate and looks forward to being of service to you.

Foreword

Enclosed is our cost estimate for cementing the casing strings in the referenced well. The information in this cost estimate includes well data, calculations, materials requirements, and cost estimates. This cost estimate is based on information from you the customer, our field personnel, and previous cementing services in the area.

The selection and use of non-Halliburton plugs and casing attachments can compromise and may jeopardize the overall objective for effective zonal isolation. Furthermore, Halliburton is not involved in the design, manufacture or use of plugs and casing attachments supplied by other manufacturers and assumes no liability for their installation and operation. For this reason we recommend Halliburton plugs and casing attachments be used when Halliburton performs any zonal isolation operation.

Halliburton Energy Services recognizes the importance of meeting society's needs for health, safety, and protection of the environment. It is our intention to proactively work with employees, customers, the public, governments, and others to use natural resources in an environmentally sound manner while protecting the health, safety, and environmental processes while supplying high quality products and services to our customers.

We appreciate the opportunity to present this cost estimate for your consideration and we look forward to being of service to you. Our Services for your well will be coordinated through the Service Center listed below. If you require any additional information or additional designs, please feel free to contact myself or our field representative listed below.

Submitted by: _____

Matthew Fling
Technical Advisor

SERVICE CENTER:	Vernal, UT
DISTRICT MANAGER:	Paul Padgett
TECHNOLOGY MANAGER:	Russell Stimatze
PRODUCT SERVICE LINE (PSL):	Cementing
SERVICE COORDINATORS:	John Feuerborn & Jeremy Pace
PHONE NUMBER:	(435) 789-2550

RECEIVED: Nov. 14, 2012

HALLIBURTON

Job Information — 13 3/8" Surface Casing

Well Name: Wellington Flats — Well #: 15-11-18E

17 1/2" Open Hole	0 - 629 ft (MD)
Inner Diameter	17.500 in
Job Excess	100 %
17 1/2" Open Hole	629 - 1129 ft (MD)
Inner Diameter	17.500 in
Job Excess	50 %
13 3/8" Surface Casing	0 - 1129 ft (MD)
Outer Diameter	13.375 in
Inner Diameter	12.615 in
Linear Weight	54.50 lbm/ft

RECEIVED: Nov. 14, 2012

HALLIBURTON

Calculations — 13 3/8" Surface Casing

Spacer:
Total Spacer = 56.15 ft^3
= 10.00 bbl

Spacer:
Total Spacer = 224.58 ft^3
= 40.00 bbl

Spacer:
Total Spacer = 56.15 ft^3
= 10.00 bbl

Cement : (629.00 ft fill)
629.00 ft * 0.6946 ft^3/ft * 100 % = 873.85 ft^3
Total Second Stage Lead Cement = 873.85 ft^3
= 155.64 bbl
Sacks of Cement = 480 sks

Cement : (500.00 ft fill)
500.00 ft * 0.6946 ft^3/ft * 50 % = 520.98 ft^3
Tail Cement = 520.98 ft^3
= 92.79 bbl

Shoe Joint Volume: (40.00 ft fill)
40.00 ft * 0.868 ft^3/ft = 34.72 ft^3
= 6.18 bbl
Tail plus shoe joint = 555.70 ft^3
= 98.97 bbl
Total Tail = 464 sks

Total Pipe Capacity:
1129.00 ft * 0.868 ft^3/ft = 979.93 ft^3
= 174.53 bbl

Displacement Volume to Shoe Joint:
Capacity of Pipe - Shoe Joint = 174.53 bbl - 6.18 bbl
= 168.35 bbl

RECEIVED: Nov. 14, 2012

HALLIBURTON

Job Recommendation — 13 3/8" Surface Casing

Fluid Instructions

Fluid 1: Water Spacer
Fresh Water

Fluid Density:	8.34 lbm/gal
Fluid Volume:	10 bbl

Fluid 2: Reactive Spacer
SuperFlush
68 lbm/bbl Halliburton Super Flush (Special Additive)

Fluid Density:	9.20 lbm/gal
Fluid Volume:	40 bbl

Fluid 3: Water Spacer
Fresh Water

Fluid Density:	8.33 lbm/gal
Fluid Volume:	10 bbl

Fluid 4: Second Stage Lead Cement
Rockies LT
0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)
0.25 lbm/sk Kwik Seal (Lost Circulation Additive)

Fluid Weight	11.50 lbm/gal
Slurry Yield:	2.94 ft^3/sk
Total Mixing Fluid:	17.83 Gal/sk
Top of Fluid:	0 ft
Calculated Fill:	629 ft
Volume:	251.00 bbl
Calculated Sacks:	480 sks
Proposed Sacks:	480 sks

Fluid 5: Tail Cement
Premium Cement
94 lbm/sk Premium Cement (Cement)
2 % Calcium Chloride (Accelerator)
0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)

Fluid Weight	15.60 lbm/gal
Slurry Yield:	1.20 ft^3/sk
Total Mixing Fluid:	5.24 Gal/sk
Top of Fluid:	629 ft
Calculated Fill:	500 ft
Volume:	98.97 bbl
Calculated Sacks:	464.24 sks
Proposed Sacks:	465 sks

Fluid 6: Water Based Spacer
Displacement

Fluid Density:	8.34 lbm/gal
Fluid Volume:	168.35 bbl

Fluid 7: Top Out Cement
Premium Cement
94 lbm/sk Premium Cement (Cement)
2 % Calcium Chloride (Accelerator)

Fluid Weight	15.80 lbm/gal
Slurry Yield:	1.17 ft^3/sk
Total Mixing Fluid:	5.02 Gal/sk
Proposed Sacks:	300 sks

RECEIVED: Nov. 14, 2012

HALLIBURTON

Job Procedure — *13 3/8" Surface Casing*

Detailed Pumping Schedule

Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Downhole Volume
1	Spacer	Fresh Water	8.3	10 bbl
2	Spacer	SuperFlush	9.2	40 bbl
3	Spacer	Fresh Water	8.3	10 bbl
4	Cement	Rockies LT	11.5	480 sks
5	Cement	Premium Cement	15.6	465 sks
6	Spacer	Displacement	8.3	168.35 bbl
7	Cement	Premium	15.8	300 sks

RECEIVED: Nov. 14, 2012

CONFIDENTIAL

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company; **WHITING OIL & GAS CORPORATION**

Well Name: **WELLINGTON FLATS 15-11-18E**

Api No: **43-007-50347** Lease Type **STATE**

Section **18** Township **15S** Range **11E** County **CARBON**

Drilling Contractor **FRONTIER DLG** RIG # **2**

SPUDDED:

Date **11/11/2012**

Time

How **DRY**

Drilling will Commence:

Reported by **CHRIS BLODGETT**

Telephone # **(281) 436-6279**

Date **11/15/2012** **Signed** **CHD**

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: Whiting Oil & Gas Corporation
Operator Account Number: N 2680
Address: 1700 Broadway, Suite 2300
city Denver
state CO zip 80290
Phone Number: (303) 390-4095

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4300750347	Wellington Flats 15-11-18E		SWNW	18	15S	11E	Carbon
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
A	New	19821	11/11/2012			11/11/2012	
Comments: HMBG							

CONFIDENTIAL
11/21/2012

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
Comments:							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
Comments:							

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

RECEIVED
NOV 19 2012
Div. of Oil, Gas & Mining

Peggy Butler
Name (Please Print)
Signature
Reg Tech
Title
11/19/12
Date

(5/2000)

API Well Number: 43007503470000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☐ (highlight changes) FORM 8

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER: ML-49795
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT or CA AGREEMENT NAME:
8. WELL NAME and NUMBER: Wellington Flats 15-11-18E
9. API NUMBER: 4300750347
10. FIELD AND POOL, OR WILDCAT: Hook Field
11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWNW 18 15S 11E
12. COUNTY: Carbon
13. STATE: UTAH

1a. TYPE OF WELL: OIL WELL ☑ GAS WELL ☐ DRY ☐ OTHER
b. TYPE OF WORK: NEW WELL ☑ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☐ OTHER
2. NAME OF OPERATOR: Whiting Oil and Gas Corporation
3. ADDRESS OF OPERATOR: 1700 Broadway Ste 2300 CITY Denver STATE CO ZIP 80290
PHONE NUMBER: (303) 837-1661
4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: 1988 FNL, 652 FWL
AT TOP PRODUCING INTERVAL REPORTED BELOW: 1984 FNL, 665 FWL
AT TOTAL DEPTH: 1988 FNL, 666 FWL

14. DATE SPUDDED: 11/11/2012
15. DATE T.D. REACHED: 12/1/2012
16. DATE COMPLETED: 12/29/2012
ABANDONED ☐ READY TO PRODUCE ☑
17. ELEVATIONS (DF, RKB, RT, GL): 5490 KB, 5473 GR
18. TOTAL DEPTH: MD 6,420 TVD 6,420
19. PLUG BACK T.D.: MD 6,180 TVD 6,180
20. IF MULTIPLE COMPLETIONS, HOW MANY? * No
21. DEPTH BRIDGE PLUG SET: MD 6,180 TVD 6,180
22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)
CAST, DSN/SD/AC/TR, BC/SA, CS/NGR, CBL
23.
WAS WELL CORED? NO ☐ YES ☑ (Submit analysis)
WAS DST RUN? NO ☑ YES ☐ (Submit report)
DIRECTIONAL SURVEY? NO ☐ YES ☑ (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
24	20		0	80				0	
17 1/2	13 3/8 J55	54.5	0	1,130		G 1,090	376	0	
12 1/4	9 5/8 L80	47	0	4,839	2,129	Econo 1,315	406	0	
8 1/2	7 HCL80	29	0	6,404		Econo 685	206		

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

26. PRODUCING INTERVALS / 27. PERFORATION RECORD

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A) Moenkopi	5,833	6,143	5,833	6,143	5,886 5,892		37	Open ☑ Squeezed ☐
(B)					5,894 5,898		25	Open ☑ Squeezed ☐
(C)					5,914 5,918		25	Open ☑ Squeezed ☐
(D)	6,143	6,347	6,143	6,347	6,194 6,208		85	Open ☑ Squeezed ☐

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
5886-5918	115 bbls 7% KCl
5894-5898	2000gals MSA 15% SBM(14300) acid
6194-6208	2000 gals 15% HCl acid

29. ENCLOSED ATTACHMENTS:
☑ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☑ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☑ CORE ANALYSIS ☑ OTHER: Cement Rpts

30. WELL STATUS: plugged off

(5/2000) (CONTINUED ON BACK)

RECEIVED: Oct. 22, 2013

API Well Number: 43007503470000

31. INITIAL PRODUCTION

INTERVAL A (As shown in Item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
1/18/2013	2/6/2013	24		3	0	0	Swab

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:
		20					3	0	0	SI

INTERVAL B (As shown in Item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in Item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in Item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
12/29/2012	1/2/2013	24		0	0	23	Swab

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:
	500						0	0	23	SI

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.

34. FORMATION (Log) MARKERS:

Name	Top (Measured Depth)
Moenkopi	4,996
Torrey A	5,503
Torrey B	5,621
Sinbad	5,682
Black Dragon	5,752
TXS SS	5,833
Kaibab	6,143
White Rim SS	6,347

35. ADDITIONAL REMARKS (Include plugging procedure)

CIBP set in Original Hole 02/20/2013 to re-enter and sidetrack. 33pg Core rpt sent separately via postal.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) Pauleen Tobin TITLE Engineer Tech

SIGNATURE DATE 10/7/2013

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

(5/2000)

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HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 306489	**Ship To #:** 2963156	**Quote #:**	**Sales Order #:** 9958210
Customer: WHITING OIL & GAS CORP EBUSINESS		**Customer Rep:** Betts, Benjamin	
Well Name: Wellington Flats	**Well #:** 15-11-18E		**API/UWI #:**
Field: HOOK	**City (SAP):** PRICE	**County/Parish:** Carbon	**State:** Utah
Legal Description: Section 18 Township 15S Range 11E			
Contractor: FRONTIER	**Rig/Platform Name/Num:** 2		
Job Purpose: Cement Surface Casing			
Well Type: Development Well	**Job Type:** Cement Surface Casing		
Sales Person: FLING, MATTHEW	**Srvc Supervisor:** SMITH, KC	**MBU ID Emp #:** 462378	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
GOODRICH, BENJAMIN Franklin	17.0	481342	SMITH, BRET George	17.0	529662	SMITH, KC Hyrum	17.0	462378
STINCHFIELD, ZACHARIAH Scott	17.0	524221	WILLIAMS, CAMERON Kent	17.0	438405			

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10248059	130 mile	10574660C	130 mile	10948687	130 mile	10991611	130 mile
11019277	130 mile	11127544	130 mile	11149201	130 mile	11259879	130 mile

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
11/13/12	2.0	0.0	11/14/12	15.0	3.25			
TOTAL			Total is the sum of each column separately					

Job

Formation Name					
Formation Depth (MD)	**Top**		**Bottom**		
Form Type		**BHST**			
Job depth MD	1129. ft	**Job Depth TVD**	1129. ft		
Water Depth		**Wk Ht Above Floor**	3. ft		
Perforation Depth (MD)	*From*		**To**		

Job Times

	Date	Time	Time Zone
Called Out	13 - Nov - 2012	15:30	MST
On Location	13 - Nov - 2012	22:00	MST
Job Started	14 - Nov - 2012	09:15	MST
Job Completed	14 - Nov - 2012	12:30	MST
Departed Loc	14 - Nov - 2012	15:00	MST

Well Data

Description	New / Used	Size in	ID in	Weight lbm/ft	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
17 1/2" Open Hole			17.5		.	1500.		
13 3/8" Surface Casing	Unknown	13.375	12.615	54.5	.	1500.		

Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

Miscellaneous Materials

Gelling Agt		**Conc**		**Surfactant**		**Conc**		**Acid Type**		**Qty**		*Conc*	%
Treatment Fld		**Conc**		*Inhibitor*		**Conc**		**Sand Type**		*Size*		*Qty*	

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HALLIBURTON

Cementing Job Summary

Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Fresh Water		10.00	bbl	8.34	.0	.0	.0	
2	SUPER FLUSH		40.00	bbl	9.2	.0	.0	.0	
	68 lbm/bbl	HALLIBURTON SUPER FLUSH (100003639)							
3	Fresh Water		20.00	bbl	8.33	.0	.0	.0	
4	Rockies LT	ROCKIES LT - SBM (430481)	480.0	sacks	11.5	2.94	17.83		17.83
	0.125 lbm	POLY-E-FLAKE (101216940)							
	0.25 lbm	KWIK SEAL, SK (100064010)							
	2 %	CAL-SEAL 60, 100 LB BAG (100005051)							
	2 %	ECONOLITE (100001580)							
	0.3 %	VERSASET, 55 LB SK (101376573)							
	17.83 Gal	FRESH WATER							
5	Premium Cement	CMT - PREMIUM - CLASS G, 94 LB SK (100003685)	610.0	sacks	15.6	1.2	5.24		5.24
	94 lbm	CMT - PREMIUM - CLASS G REG OR TYPE V, BULK (100003685)							
	2 %	CALCIUM CHLORIDE - HI TEST PELLET (100005053)							
	0.125 lbm	POLY-E-FLAKE (101216940)							
	5.238 Gal	FRESH WATER							
6	Displacement Fluid		177.00	bbl	8.34	.0	.0	.0	
7	Premium Cement	CMT - PREMIUM - CLASS G, 94 LB SK (100003685)		sacks	15.8	1.15	5.02		5.02
	94 lbm	CMT - PREMIUM - CLASS G REG OR TYPE V, BULK (100003685)							
	2 %	CALCIUM CHLORIDE - HI TEST PELLET (100005053)							
	5.019 Gal	FRESH WATER							

Calculated Values		Pressures		Volumes					
Displacement	167.5	Shut In: Instant		Lost Returns	0	Cement Slurry	381.7	Pad	
Top Of Cement	0	5 Min		Cement Returns	180	Actual Displacement	167.5	Treatment	
Frac Gradient		15 Min		Spacers	70	Load and Breakdown		Total Job	619.2

Rates							
Circulating	4.0	Mixing	4.0	Displacement	6.0	Avg. Job	5.0

Cement Left In Pipe	Amount	40 ft	Reason	Shoe Joint

Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID

The Information Stated Herein Is Correct	Customer Representative Signature

Summit Version:

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HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 366960	**Ship To #:** 2963156	**Quote #:**	**Sales Order #:** 900005350
Customer: WHITING OIL & GAS CORP - EBUS		**Customer Rep:** Betts, Benjamin	
Well Name: Wellington Flats	**Well #:** 15-11-18E		**API/UWI #:**
Field: HOOK	**City (SAP):** PRICE	**County/Parish:** Carbon	**State:** Utah
Legal Description: Section 18 Township 15S Range 11E			
Contractor: FRONTIER	**Rig/Platform Name/Num:** 2		
Job Purpose: Cement Multiple Stages			
Well Type: Development Well	**Job Type:** Cement Multiple Stages		
Sales Person: FLING, MATTHEW	**Srvc Supervisor:** DEAN, MARK	**MBU ID Emp #:** 454214	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
DEAN, MARK Christophe	0.0	454214	HUNTER, SAMUEL David	0.0	479669	LAWTON, SCOTT C	0.0	482816
SLAUGH, CODY B	0.0	104465	WHITE, KAMEREON V	0.0	475856			

Equipment

HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*

Job Hours

Date	*On Location Hours*	Operating Hours	Date	*On Location Hours*	Operating Hours	Date	*On Location Hours*	Operating Hours
TOTAL		*Total is the sum of each column separately*						

Job

Formation Name					
Formation Depth (MD)	**Top**		**Bottom**		
Form Type		**BHST**			
Job depth MD	4800. ft	**Job Depth TVD**			
Water Depth		**Wk Ht Above Floor**			
Perforation Depth (MD)	*From*		**To**		

Job Times

	Date	Time	Time Zone
Called Out	22 - Nov - 2012	10:00	MST
On Location	22 - Nov - 2012	16:00	MST
Job Started	22 - Nov - 2012	19:15	MST
Job Completed	23 - Nov - 2012	03:18	MST
Departed Loc	23 - Nov - 2012	05:30	MST

Well Data

Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft
12 1/4" Open Hole			12.25				1500.	4800.
Multiple Stage Cementer	Used		.				.	2100.
13 3/8" Surface Casing	Unknown	13.375	12.615	54.5			.	1500.
9 5/8" Intermediate Casing	Unknown	9.625	8.681	47.	LTC	L-80	.	4800.

Sales/Rental/3rd Party (HES)

Description	Qty	Qty uom	Depth	Supplier
SHOE,FLT,9-5/8 8RD,2-3/4 SUPER SEAL	1	EA		
CLR,FLT,9-5/8 8RD 29.3-40PPF,2-3/4	1	EA		
CENTRALIZER-9-5/8"-CSG-12 1/4"-HINGED	25	EA		
COLLAR-STOP-9 5/8"-FRICTION-HINGED	1	EA		
KIT,HALL WELD-A	2	EA		
PLUG SET,FREE FALL,9-5/8 8RD&BUTRS	1	EA		

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HALLIBURTON

Cementing Job Summary

Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

Miscellaneous Materials

Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty		Conc	%
Treatment Fld		Conc		*Inhibitor*		Conc		Sand Type		*Size*		*Qty*	

Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Fresh Water		10	bbl	8.33	.0	.0	.0	
2	EconoCem	ECONOCEM (TM) SYSTEM (452992)	340	sacks	12.2	2.15	11.96		11.96
	0.125 lbm	POLY-E-FLAKE (101216940)							
	0.2 %	SUPER CBL, 50 LB PAIL (100003668)							
	11.96 Gal	FRESH WATER							
3	EXTENDACEM	EXTENDACEM (TM) SYSTEM (452981)	400	sacks	14.2	1.32	5.79		5.79
	0.2 %	SUPER CBL, 50 LB PAIL (100003668)							
	0.3 %	HALAD(R)-413, 50 LB (100003738)							
	5.79 Gal	FRESH WATER							
4	Displacement Fluid		348.2	bbl	9.4			.0	

Stage/Plug #: 2

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density uom	Yield uom	Mix Fluid uom	Rate uom	Total Mix Fluid uom
1	Fresh Water		10	bbl	8.33	.0	.0	.0	
2	EconoCem	ECONOCEM (TM) SYSTEM (452992)	475	sacks	12.2	2.15	11.96		11.96
	0.125 lbm	POLY-E-FLAKE (101216940)							
	0.2 %	SUPER CBL, 50 LB PAIL (100003668)							
	11.96 Gal	FRESH WATER							
3	Displacement Fluid		153.7	bbl	8.6	.0	.0	.0	

Calculated Values		Pressures		Volumes					
Displacement	353, 158	Shut In: Instant		Lost Returns	20	*Cement Slurry*	405	Pad	
Top Of Cement	0	5 Min		Cement Returns	15	Actual Displacement	353, 157	Treatment	
Frac Gradient		15 Min		Spacers	20	Load and Breakdown		Total Job	935

Rates

Circulating	4.0	*Mixing*	5.0	*Displacement*	6.0	Avg. Job	5.0

Cement Left In Pipe	Amount	*40 ft*	*Reason*	*Shoe Joint*

Frac Ring # 1 @		*ID*		*Frac ring # 2 @*		*ID*		*Frac Ring # 3 @*		*ID*		*Frac Ring # 4 @*		*ID*	

The Information Stated Herein Is Correct	***Customer Representative Signature***

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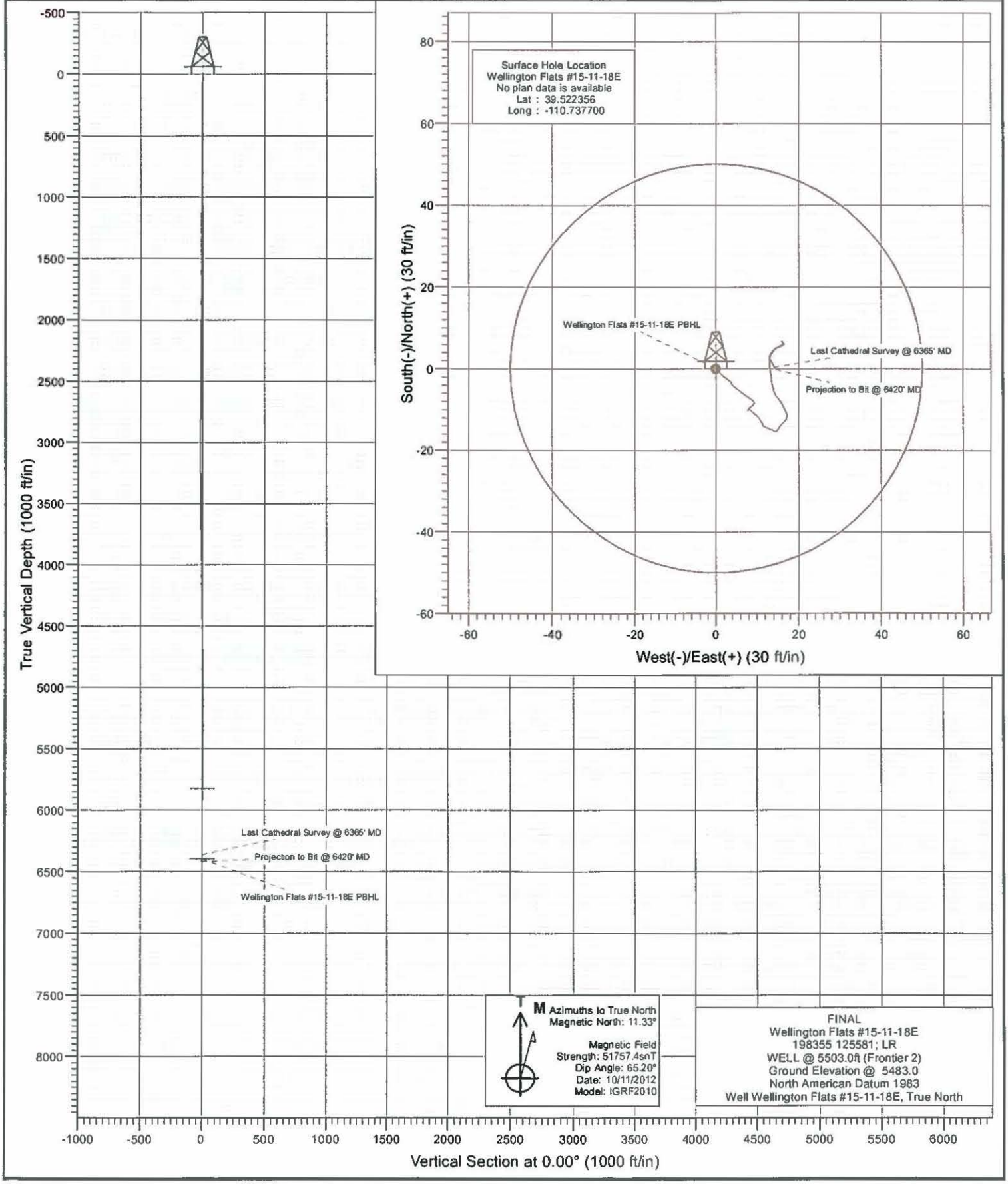
API Well Number: 43007503470000

WHITING PETROLEUM CORPORATION

Project: Carbon County, UT
Site: S18-T15S-R11E
Well: Wellington Flats #15-11-18E
Wellbore: VH
Design: FINAL

CATHEDRAL



RECEIVED: Oct. 22, 2013

Cathedral Energy Services

Survey Report

Company:	Whiting Petroleum Corporation	**Local Co-ordinate Reference:**	Well Wellington Flats #15-11-18E
Project:	Carbon County, UT	**TVD Reference:**	WELL @ 5503.0ft (Frontier 2)
Site:	S18-T15S-R11E	**MD Reference:**	WELL @ 5503.0ft (Frontier 2)
Well:	Wellington Flats #15-11-18E	**North Reference:**	True
Wellbore:	VH	**Survey Calculation Method:**	Minimum Curvature
Design:	FINAL	**Database:**	USA EDM 5000 Multi Users DB

Project Carbon County, UT

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Utah Central Zone		

Site S18-T15S-R11E

Site Position:		**Northing:**	6,995,679.03 ft	**Latitude:**	39.522356
From:	Lat/Long	**Easting:**	1,855,448.04 ft	**Longitude:**	-110.737700
Position Uncertainty:	0.0 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.49 °

Well Wellington Flats #15-11-18E

Well Position	**+N/-S**	0.0 ft	**Northing:**	6,995,679.02 ft	**Latitude:**	39.522356
	+E/-W	0.0 ft	**Easting:**	1,855,448.04 ft	**Longitude:**	-110.737700
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	5,483.0 ft

Wellbore VH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/11/2012	11.33	65.20	51,757

Design FINAL

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	0.00

Survey Program **Date** 2/20/2013

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
132.0	6,420.0	Survey #1 (VH)	MWD	Geolink MWD

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
132.0	0.40	142.60	132.0	-0.4	0.3	-0.4	0.30	0.30	
193.0	0.60	138.20	193.0	-0.8	0.6	-0.8	0.33	0.33	
256.0	0.60	133.30	256.0	-1.2	1.1	-1.2	0.08	0.00	
349.0	1.10	126.50	349.0	-2.1	2.2	-2.1	0.55	0.54	
443.0	0.70	122.80	443.0	-3.0	3.4	-3.0	0.43	-0.43	
536.0	0.20	198.90	536.0	-3.4	3.8	-3.4	0.73	-0.54	
630.0	0.10	282.60	630.0	-3.6	3.7	-3.6	0.23	-0.11	
722.0	0.10	142.30	722.0	-3.6	3.6	-3.6	0.20	0.00	
817.0	0.20	142.50	817.0	-3.8	3.8	-3.8	0.11	0.11	
912.0	0.50	131.20	912.0	-4.2	4.2	-4.2	0.32	0.32	
949.0	0.60	126.40	949.0	-4.4	4.5	-4.4	0.30	0.27	
1,007.0	2.00	127.70	1,006.9	-5.2	5.5	-5.2	2.41	2.41	

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Cathedral Energy Services

Survey Report

Company:	Whiting Petroleum Corporation	**Local Co-ordinate Reference:**	Well Wellington Flats #15-11-18E
Project:	Carbon County, UT	**TVD Reference:**	WELL @ 5503.0ft (Frontier 2)
Site:	S18-T15S-R11E	**MD Reference:**	WELL @ 5503.0ft (Frontier 2)
Well:	Wellington Flats #15-11-18E	**North Reference:**	True
Wellbore:	VH	**Survey Calculation Method:**	Minimum Curvature
Design:	FINAL	**Database:**	USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
1,087.0	1.00	130.80	1,086.9	-6.5	7.1	-6.5	1.25	-1.25	
1,132.0	1.40	120.60	1,131.9	-7.1	7.9	-7.1	1.00	0.89	
1,164.0	1.30	122.70	1,163.9	-7.5	8.6	-7.5	0.35	-0.31	
1,195.0	0.60	134.80	1,194.9	-7.8	9.0	-7.8	2.34	-2.26	
1,259.0	0.40	158.90	1,258.9	-8.2	9.3	-8.2	0.45	-0.31	
1,322.0	0.10	196.10	1,321.9	-8.5	9.4	-8.5	0.52	-0.48	
1,416.0	0.10	242.40	1,415.9	-8.6	9.3	-8.6	0.08	0.00	
1,511.0	0.00	233.00	1,510.9	-8.6	9.2	-8.6	0.11	-0.11	
1,606.0	0.20	196.70	1,605.9	-8.8	9.1	-8.8	0.21	0.21	
1,700.0	0.50	239.10	1,699.9	-9.2	8.7	-9.2	0.40	0.32	
1,795.0	0.70	214.60	1,794.9	-9.8	8.0	-9.8	0.34	0.21	
1,889.0	0.10	14.10	1,888.9	-10.2	7.7	-10.2	0.85	-0.64	
1,984.0	0.20	358.30	1,983.9	-10.0	7.8	-10.0	0.11	0.11	
2,078.0	0.40	110.80	2,077.9	-9.9	8.1	-9.9	0.54	0.21	
2,173.0	0.60	139.10	2,172.9	-10.4	8.7	-10.4	0.33	0.21	
2,267.0	1.00	127.40	2,266.9	-11.3	9.7	-11.3	0.46	0.43	
2,362.0	0.40	148.80	2,361.9	-12.1	10.5	-12.1	0.68	-0.63	
2,425.0	0.50	151.50	2,424.9	-12.5	10.7	-12.5	0.16	0.16	
2,520.0	0.40	154.30	2,519.9	-13.2	11.1	-13.2	0.11	-0.11	
2,584.0	0.30	151.00	2,583.9	-13.5	11.3	-13.5	0.16	-0.16	
2,678.0	0.20	181.60	2,677.9	-13.9	11.4	-13.9	0.17	-0.11	
2,773.0	0.40	95.80	2,772.9	-14.1	11.7	-14.1	0.46	0.21	
2,868.0	0.60	128.80	2,867.9	-14.5	12.4	-14.5	0.36	0.21	
2,910.0	0.40	106.90	2,909.8	-14.6	12.7	-14.6	0.65	-0.48	
2,963.0	0.50	108.30	2,962.8	-14.8	13.1	-14.8	0.19	0.19	
3,026.0	0.40	112.80	3,025.8	-14.9	13.6	-14.9	0.17	-0.16	
3,121.0	0.50	137.00	3,120.8	-15.4	14.2	-15.4	0.22	0.11	
3,216.0	0.40	19.70	3,215.8	-15.4	14.6	-15.4	0.81	-0.11	
3,310.0	0.30	76.90	3,309.8	-15.0	14.9	-15.0	0.37	-0.11	
3,406.0	0.50	358.80	3,405.8	-14.5	15.2	-14.5	0.55	0.21	
3,512.0	0.70	55.50	3,511.8	-13.7	15.7	-13.7	0.56	0.19	
3,595.0	0.70	45.70	3,594.8	-13.1	16.5	-13.0	0.14	0.00	
3,689.0	0.50	23.80	3,688.8	-12.3	17.0	-12.3	0.32	-0.21	
3,784.0	0.50	353.00	3,783.8	-11.5	17.2	-11.5	0.28	0.00	
3,879.0	0.40	345.70	3,878.8	-10.8	17.0	-10.7	0.12	-0.11	
3,974.0	0.70	330.20	3,973.8	-9.9	16.7	-9.9	0.35	0.32	
4,069.0	0.80	336.80	4,068.8	-8.8	16.1	-8.8	0.14	0.11	
4,164.0	1.00	317.00	4,163.8	-7.6	15.3	-7.6	0.39	0.21	
4,259.0	0.60	332.40	4,258.8	-6.5	14.5	-6.5	0.47	-0.42	
4,354.0	1.10	339.90	4,353.8	-5.3	13.9	-5.3	0.54	0.53	
4,449.0	1.20	351.90	4,448.8	-3.4	13.5	-3.4	0.27	0.11	
4,544.0	1.20	353.70	4,543.7	-1.4	13.2	-1.4	0.04	0.00	
4,638.0	1.30	352.10	4,637.7	0.6	13.0	0.6	0.11	0.11	
4,863.0	1.00	42.50	4,862.7	4.6	14.0	4.6	0.45	-0.13	
4,895.0	0.90	47.80	4,894.7	4.9	14.3	4.9	0.42	-0.31	
4,926.0	1.00	62.00	4,925.7	5.2	14.8	5.2	0.82	0.32	
4,958.0	1.00	67.80	4,957.7	5.5	15.3	5.5	0.32	0.00	
4,990.0	1.10	70.70	4,989.6	5.7	15.8	5.7	0.35	0.31	
5,021.0	0.50	48.40	5,020.6	5.9	16.2	5.9	2.15	-1.94	
5,053.0	0.30	345.60	5,052.6	6.0	16.3	6.0	1.41	-0.62	
5,085.0	0.50	327.30	5,084.6	6.2	16.2	6.2	0.73	0.62	
5,117.0	0.40	315.50	5,116.6	6.4	16.0	6.4	0.42	-0.31	
5,148.0	0.10	310.90	5,147.6	6.5	15.9	6.5	0.97	-0.97	

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Cathedral Energy Services

Survey Report

Company:	Whiting Petroleum Corporation	**Local Co-ordinate Reference:**	Well Wellington Flats #15-11-18E
Project:	Carbon County, UT	**TVD Reference:**	WELL @ 5503.0ft (Frontier 2)
Site:	S18-T15S-R11E	**MD Reference:**	WELL @ 5503.0ft (Frontier 2)
Well:	Wellington Flats #15-11-18E	**North Reference:**	True
Wellbore:	VH	**Survey Calculation Method:**	Minimum Curvature
Design:	FINAL	**Database:**	USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
5,180.0	0.20	322.00	5,179.6	6.6	15.9	6.6	0.32	0.31	
5,212.0	0.10	88.80	5,211.6	6.6	15.9	6.6	0.85	-0.31	
5,243.0	0.10	76.70	5,242.6	6.6	15.9	6.6	0.07	0.00	
5,275.0	0.10	101.30	5,274.6	6.6	16.0	6.7	0.13	0.00	
5,307.0	0.20	143.30	5,306.6	6.6	16.0	6.6	0.44	0.31	
5,338.0	0.50	145.40	5,337.6	6.4	16.1	6.4	0.97	0.97	
5,365.0	0.50	138.70	5,364.6	6.3	16.3	6.3	0.22	0.00	
5,405.0	0.40	194.90	5,404.6	6.0	16.4	6.0	1.08	-0.25	
5,425.0	0.40	238.70	5,424.6	5.9	16.3	5.9	1.49	0.00	
5,515.0	0.50	249.90	5,514.6	5.6	15.7	5.6	0.15	0.11	
5,610.0	0.40	238.40	5,609.6	5.3	15.0	5.3	0.14	-0.11	
5,705.0	0.40	240.10	5,704.6	4.9	14.4	4.9	0.01	0.00	
5,799.0	0.50	227.30	5,798.6	4.5	13.8	4.5	0.15	0.11	
5,865.0	0.40	214.40	5,864.6	4.1	13.5	4.1	0.21	-0.15	
5,926.0	0.40	213.00	5,925.6	3.8	13.2	3.8	0.02	0.00	
6,021.0	0.40	196.10	6,020.6	3.2	13.0	3.2	0.12	0.00	
6,098.0	0.40	163.10	6,097.6	2.6	13.0	2.6	0.30	0.00	
6,193.0	0.50	145.80	6,192.6	2.0	13.3	2.0	0.18	0.11	
6,287.0	0.60	161.20	6,286.6	1.2	13.7	1.2	0.19	0.11	
6,365.0	0.70	142.60	6,364.6	0.4	14.1	0.4	0.30	0.13	Last Cathedral Survey @ 6365' MD
6,420.0	0.70	142.60	6,419.6	-0.1	14.5	-0.1	0.00	0.00	Projection to Bit @ 6420' MD

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Wellington Flats #15-11-	0.00	0.00	6,400.0	0.0	0.0	6,995,679.03	1,855,448.04	39.522356	-110.737700
- survey misses target center by 14.4ft at 6400.3ft MD (6399.9 TVD, 0.1 N, 14.4 E)									
- Circle (radius 50.0)									

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
6,365.0	6,364.6	0.4	14.1	Last Cathedral Survey @ 6365' MD
6,420.0	6,419.6	-0.1	14.5	Projection to Bit @ 6420' MD

Checked By: _____ Approved By: _____ Date: _____

RECEIVED: Oct. 22, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-49795

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Wellington Flats 15-11-18E

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER:
43007503470000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER:
303 390-4095 Ext

9. FIELD and POOL or WILDCAT:
UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
1988 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWNW Section: 18 Township: 15.0S Range: 11.0E Meridian: S

COUNTY:
CARBON

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 1/8/2013	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: Change of Drilling Plans

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

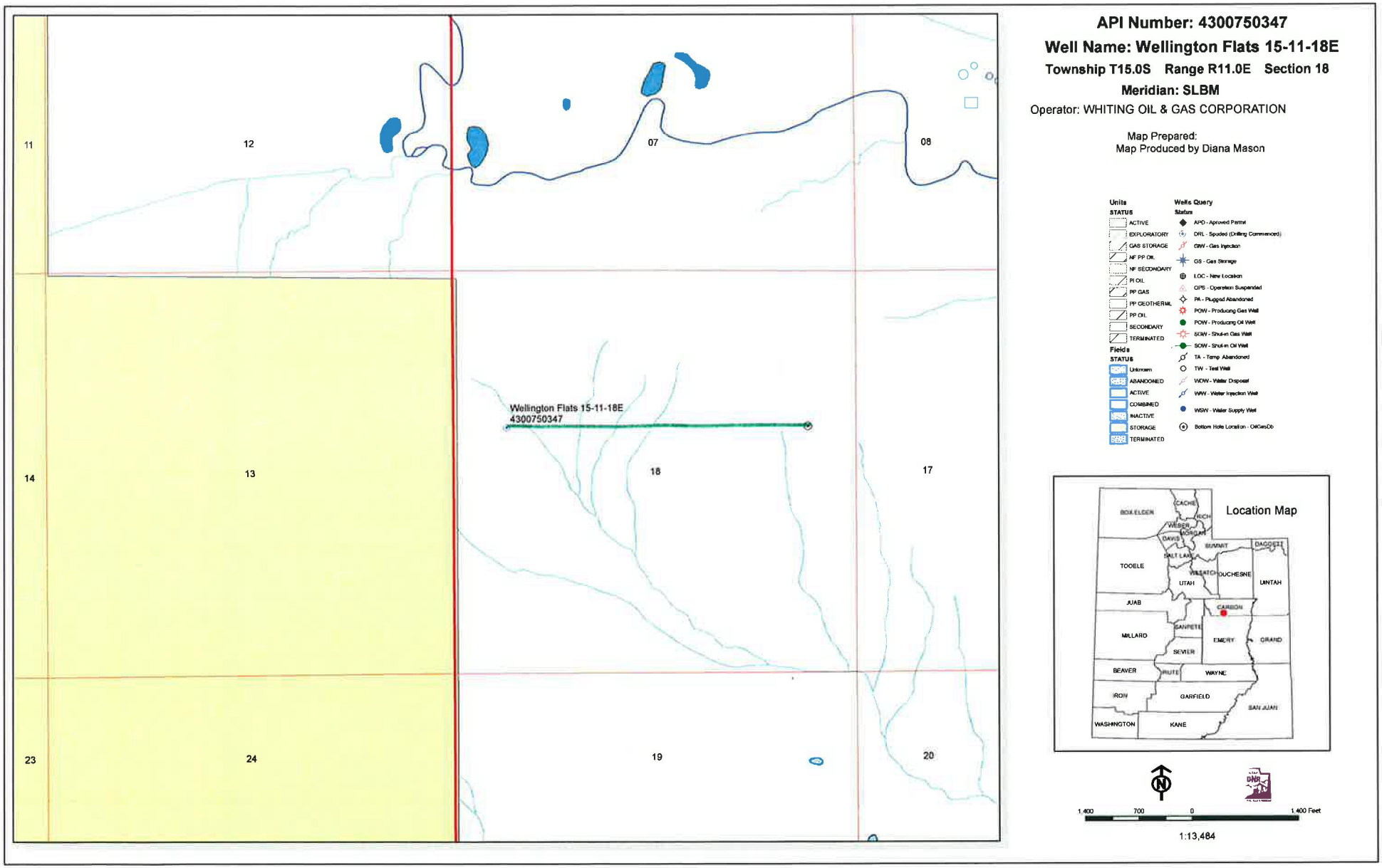
Whiting Oil and Gas Corporation is requesting a change of drilling plans to drill a casing exit horizontal lateral out of the subject well. The well will target the Moenkopi Formation. The well will be drilled as follows: (also see attached drilling and Directional Plans) KOP: 5,378' MD & TVD. Location of KOP in current wellbore: 1,982' FNL & 668' FWL, SWNW Section 18-T11S-R15E. Horizontal BHL: 1,988' FNL & 660' FEL, SENE Section 18-T11S-R15E. Attached are the following documents: Lease set-back affidavit, Drilling Plan, Directional plan Casing summary and Casing Cementing summaries, Location Plat.

Approved by the Utah Division of Oil, Gas and Mining

Date: January 08, 2013

By: Dark K Quist

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Scott Webb	303 390-4095	Regulatory & Permitting Manager
SIGNATURE		**DATE**
N/A		1/8/2013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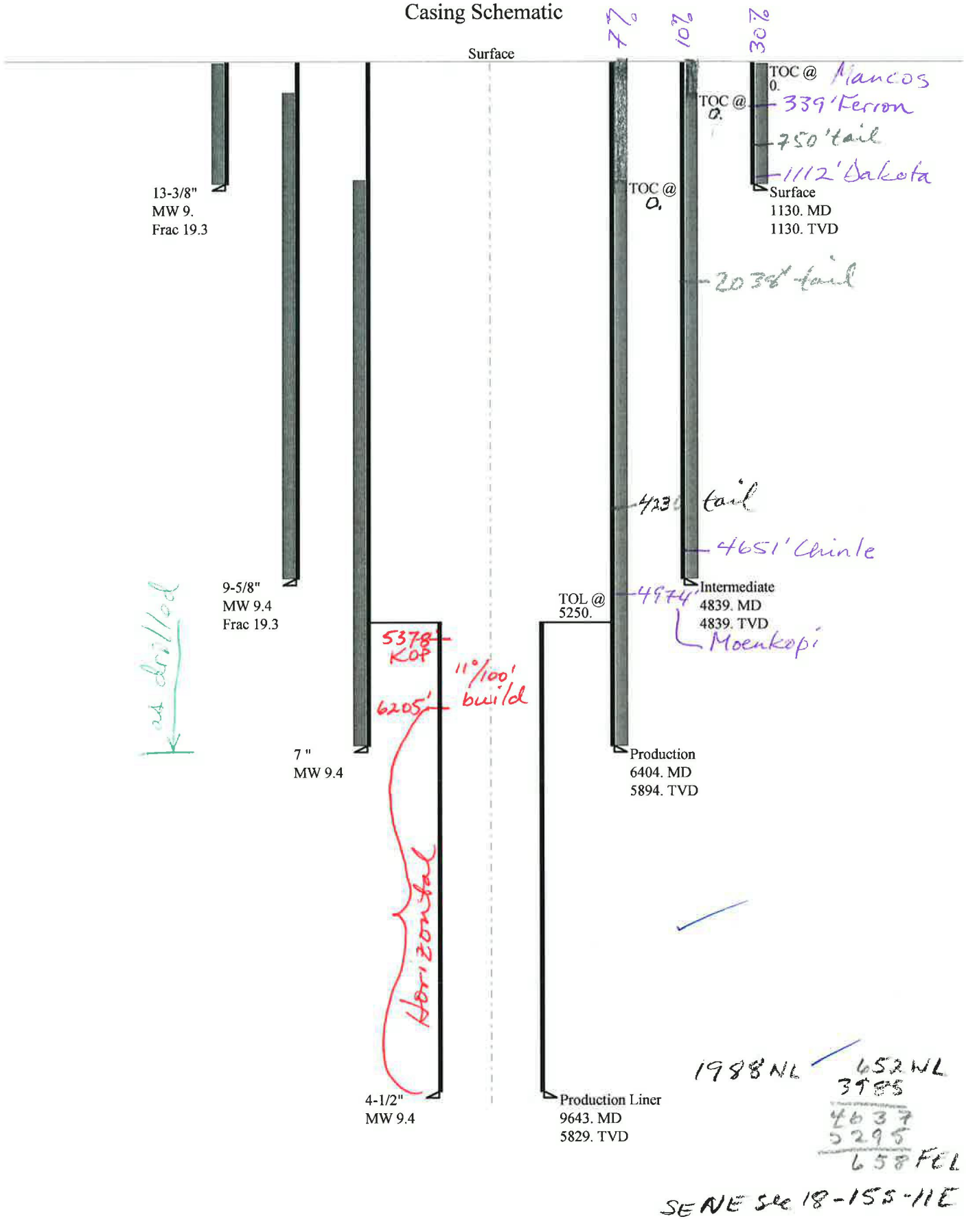
Wellington Flats 15-11-18E
4300750347
API Number: 4300750347
Well Name: Wellington Flats 15-11-18E
Township T15.0S Range R11.0E Section 18
Meridian: SLBM
Operator: WHITING OIL & GAS CORPORATION
Map Prepared:
Map Produced by Diana Mason
Units
STATUS
ACTIVE
EXPLORATORY
GAS STORAGE
NF PP OIL
NF SECONDARY
PI OIL
PP GAS
PP GEOTHERML
PP OIL
SECONDARY
TERMINATED
Fields
STATUS
Unknown
ABANDONED
ACTIVE
COMBINED
INACTIVE
STORAGE
TERMINATED
Wells Query
Status
APD - Aproved Permit
DRL - Spuded (Drilling Commenced)
GIW - Gas Injection
GS - Gas Storage
LOC - New Location
OPS - Operation Suspended
PA - Plugged Abandoned
POW - Producing Gas Well
POW - Producing Oil Well
SGW - Shut-in Gas Well
SOW - Shut-in Oil Well
TA - Temp. Abandoned
TW - Test Well
WDW - Water Disposal
WIW - Water Injection Well
WSW - Water Supply Well
Bottom Hole Location - OilGasDb
Location Map
BOX ELDER
CACHE
RICH
WEBER
MORGAN
DAVIS
SUMMIT
DAGGETT
SALT LAKE
TOOELE
WASATCH
DUCHESNE
UINTAH
UTAH
JUAB
CARBON
SANPETE
MILLARD
EMERY
GRAND
SEVIER
BEAVER
PIUTE
WAYNE
IRON
GARFIELD
SAN JUAN
WASHINGTON
KANE
1,400
700
0
1,400 Feet
1:13,484

43007503470000 Wellington Flats 15-11-18Erev

Casing Schematic



Well name:	**43007503470000 Wellington Flats 15-11-18Erev**
Operator:	**WHITING OIL & GAS CORPORATION**
String type:	Production Liner
Project ID:	43-007-50347
Location:	CARBON COUNTY

Design parameters:

Collapse

Mud weight: 9.400 ppg
Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 1,564 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 2,846 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

8 Round STC:	1.80 (J)
8 Round LTC:	1.80 (J)
Buttress:	1.60 (J)
Premium:	1.50 (J)
Body yield:	1.60 (B)

Tension is based on air weight.
Neutral point: 5,781 ft

Environment:

H2S considered?	No
Surface temperature:	74 °F
Bottom hole temperature:	156 °F
Temperature gradient:	1.40 °F/100ft
Minimum section length:	1,000 ft

Liner top: 5,250 ft

Directional Info - Build & Hold

Kick-off point	5378 ft
Departure at shoe:	3967 ft
Maximum dogleg:	11.02 °/100ft
Inclination at shoe:	91.15 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	4443	4.5	11.60	L-80	LT&C	5829	9643	3.875	20585

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	2846	6350	2.231	2862	7780	2.72	7.3	212	29.06 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940

Date: January 7,2013
Salt Lake City, Utah

Remarks:
For this liner string, the top is rounded to the nearest 100 ft.Collapse is based on a vertical depth of 5829 ft, a mud weight of 9.4 ppg The Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

AFFIDAVIT Distance to Lease Lines

Wellington Flats 15-11-18E

Well Name: Wellington Flats 15-11-18E Horizontal Casing Exit

Location: SHL 1988' FNL & 652' FWL (Formation Entry Point is 1982' FNL & 668' FWL)

BHL 1988' FNL & 660' FEL

Section 18-T15S-R11E

County: Carbon County, Utah

Permit No.: API# 43-007-50347

The Subject well horizontal wellbore will be a minimum of 660 feet away from all lease lines in Section 18-T11S-R15E, Carbon County, Utah

Dated: December 21, 2012

Scott M. Webb-Regulatory & Permitting Manager

Whiting Oil and Gas Corporation

ACKNOWLEDGEMENT

STATE OF COLORADO)

) ss.

COUNTY OF DENVER)

On this 21st day of December, 2012, before me, a Notary Public, personally appeared Scott M. Webb, who being by me duly sworn, did say that he is Regulatory Coordinator of whiting Oil and Gas Corporation, and that the foregoing instrument was executed by him on behalf of said company as its free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed by Notarial Seal the day and year first above written.

(SEAL)

DIANE L. BLAIR NOTARY PUBLIC STATE OF COLORADO

Diane L Blair

NOTARY PUBLIC

My Commission Expires 4/27/2016

My Commission Expires: _____

Whiting Oil & Gas Corporation
Wellington Flats 15-11-18E Drill Plan
Horizontal – Moenkopi Well
Rev January 7, 2012

Summary:
The Wellington Flats 15-11-18E well will be a horizontal well in the Moenkopi formation. A whip-stock will be set and a window cut in the 7" casing at 5,378' MD. A 6-1/8" curve will be built to land the in the Moenkopi at 5,897' TVD. The lateral will be drilled with a 6-1/8" bit to TD at 9,642' MD. 4-1/2" casing with swell packers will be run in the lateral for completion.

Surface Location: 18-T15S-R11E
1980' FNL 660' FWL
Carbon County, Utah

Bottomhole Location: 18-T15S-R11E
1988' FNL 660' FEL
Weld County, Colorado

DRILLING PROGRAM

1. ESTIMATED TOPS OF GEOLOGICAL MARKERS:

Ground Level 5,472' Estimated KB 5,494' (22')

Formation	MD	Lithology	Hazard
Mancos	Surface	SH-SS	
Ferron	339'	SS-COAL-SH	
Dakota	1,112'	SS-SI-SH	
Chinle	4,651'	SS-SH	
Moenkopi	4,974'	SS-SH-LS	
Horizontal Target (TVD)	5,897'	SS-SH-LS	
TD Niobrara Horizontal (MD)	9,642'		

2. DIRECTIONAL PLANS

KOP:	5,378' MD, 5,378' TVD
BUILD RATE - AZIMUTH:	11°/100', 90.04° Azimuth
END OF BUILD:	6,205' MD, 5,897' TVD at 91.15° Inc and 90.04° Azimuth
7" CASING POINT:	6,404' MD, 6,420' TVD at 0.42° Inc and 153.87° Azimuth
7" CSG POINT COORDINATES:	1,974' FNL & 668' FWL Sec 18 T15S R11E
TD LATERAL:	9,642' MD, 5,828' TVD at 90.00° Inc and 90.04° Azimuth
BH LOCATION:	1,988' FNL & 660' FEL Sec 18 T15S R11E

See attached Directional Proposal Listings for more details.

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3. PRESSURE CONTROL EQUIPMENT

A. Type: 13-5/8" 5,000 psi double gate hydraulic BOP with 13-5/8" 5,000 psi annular preventer with 5,000 psi Casinghead and 5,000 psi Tubinghead.

B. Testing Procedure:

The annular preventer will be pressure tested to 50% of stack rated working pressure for ten (10) minutes or until provisions of test are met, whichever is longer. The BOP, choke manifold, and related equipment will be pressure tested to approved BOP stack working pressure (if isolated from surface casing by a test plug) or to 70% of surface casing internal yield strength (if BOP is not isolated by a test plug). Pressure will be maintained for ten (10) minutes or until the requirements of the test are met, whichever is longer. At a minimum, the Annular and Blow-Out Preventer pressure tests will be performed:

1. When the BOPE is initially installed;
2. Whenever any seal subject to test pressure is broken;
3. Following related repairs; and
4. At thirty (30) day intervals.

Annular will be function tested weekly, and pipe & blind rams activated each trip, but not more than once per day. All BOP drills & tests will be recorded in IADC driller's log.

C. Choke Manifold Equipment:

All choke lines will be straight lines whenever possible at turns, tee blocks will be used or will be targeted with running tees, and will be anchored to prevent whip and vibration.

D. Accumulator:

Accumulator will have sufficient capacity to open hydraulically-controlled choke line valve (if so equipped), close all rams plus annular preventer, and retain a minimum of 200 psi above precharge on the closing manifold without the use of closing unit pumps. The fluid reservoir capacity will be double accumulator capacity and the fluid level will be maintained at manufacturer's recommendations. Accumulator precharge pressure test will be conducted prior to connecting the closing unit to the BOP stack.

E. Miscellaneous Information:

Choke manifold and BOP extension rods with hand wheels will be located outside rig sub-structure. Hydraulic BOP closing unit will be located at least twenty-five (25) feet from the wellhead but readily accessible to the driller. Exact locations and configurations of the hydraulic BOP closing unit will depend upon the particular rig contracted to drill this hole.

A flare line will be installed after the choke manifold with the discharge point of the flare line to a separate pit located at least 125 feet away from the wellbore and any existing production facilities.

A volume monitoring system with alarms will be used to monitor pit gains/losses along with visual backup.

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4. PROPOSED CASING PROGRAM

A. Casing Program: All New

Hole Size	Casing Size	Wt./Ft.	Grade	Joint	Coupling OD	Burst (psi)	Collapse (psi)	Tension (Body/Joint) (klbs)	Depth Set (md)
17-1/2"	13-3/8"	54.50	J-55	ST&C	14.375"	2,730	1,130	853/514	0 – 1,130'
12-1/4"	9-5/8"	47	L-80	LT&C	10.625"	6,870	4,750	1,086/893	0 – 4,839'
8-1/2"	7"	29	L-80	LT&C	7.656"	8,160	7,020	676/587	0 – 6,404'
6-1/8"	4-1/2"	11.6	L-80	LT&C	5"	7,780	6,350	267/212	5,250' – 9,642'

13-3/8" surface casing is existing

1. Install a bowspring centralizer at the first and second collars above the guide shoe.
2. Install one bowspring centralizer every third joint above the second collar.
3. Centralizer and basket placed 120' below the surface (or at the bottom of the third joint below the surface).
4. Centralizer and basket placed 80' below the surface (or at the bottom of the second joint below the surface).

9-5/8" intermediate casing is existing

1. Install a bowspring centralizer at the first and second collars above the guide shoe.
2. After that centralize every third joint to surface with single bow spring centralizers

7" production casing will is existing:

1. Install a bowspring centralizer at the first and second collars above the guide shoe.
2. After that centralize every third joint to surface with single bow spring centralizers.

4-1/2" Liner to be run with Swelling Packers and Frac Sleeves in the horizontal lateral of the well

Casing string(s) will be pressure tested to 0.22 psi/foot of casing string length or 1500 psi, whichever is greater (not to exceed 70% of the internal yield strength of the casing), after cementing and prior to drilling out from under the casing shoe.

B. Casing Design Parameters:

Surface Casing

Interval	Size	Wt	Grade	Burst (psi)[a]/SF	Collapse (psi)[b]/SF	Tension (klb)[c]/SF
0' – 1,130'	13-3/8"	54.50 lb/ft	J-55	2,730/2.59	1,130/1.61	514/7.29

a. based on frac gradient at shoe of 14.0 ppg
b. based on full evacuation with 9.0 ppg fluid on backside
c. based on casing string weight in 9.0 ppg mud
String Weight in 9.0 ppg mud ≈ 70,517 lbs

Intermediate Casing

Interval	Size	Wt	Grade	Burst (psi)[a]/SF	Collapse (psi)[b]/SF	Tension (klb)[c]/SF
0' – 4,839'	9-5/8"	47.0 lb/ft	L-80	6,870/4.92	4,750/2.02	893/4.62

a. based on frac gradient at shoe of 14.0 ppg
b. based on full evacuation with 9.4 ppg pore pressure on backside
c. based on casing string weight in 9.4 ppg mud
String Weight in 9.4 ppg mud ≈ 193,224 lbs.

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Production Casing

Interval	Size	Wt	Grade	Burst (psi)[a]/SF	Collapse (psi)[b]/SF	Tension (klb)[c]/SF
0'-6,404'	7"	29.0 lb/ft	L-80	8,160/1.26	7,020/1.62	587/2.66

a. based on 6,500 psi frac pressure.
b. based on full evacuation with 9.4 ppg pore pressure on backside
c. based on casing string weight in 9.4 ppg mud
String Weight in 9.4 ppg mud ≈ 220,811 lbs.

Production Liner

Interval	Size	Wt	Grade	Burst (psi)[a]/SF	Collapse (psi)[b]/SF	Tension (klb)[c]/SF
5,250'-9,642'	4-1/2"	11.6 lb/ft	L-80	7,780/1.20	6,350/2.23	212/4.86

a. based on 6,500 psi frac pressure.
b. based on full evacuation with 9.4 ppg pore pressure on backside
c. based on casing string weight in 9.4 ppg mud
String Weight in 9.4 ppg mud ≈ 43,636 lbs.

5. CEMENTING PROGRAM (All Casing Strings are existing)

Surface Casing – 13-3/8" Casing: TOC Surface, (100% Excess)

CASING	SLURRY	FT. of FILL	CEMENT TYPE	SXS	XC (%)	WEIGHT (ppg)	YIELD (ft^3/sx)
13-3/8"	Lead	1,000'	Lead Cement Rockies LT; - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) - 0.25 lbm/sk Kwik Seal (Lost Circulation Additive)	480	100	11.5	2.94
13-3/8"	Tail	130'	Tail Cement Premium Cement; - 94 lbm/sk Premium Cement (Cement) - 2% Calcium Chloride (Accelerator) - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)	610	100	15.6	1.20

A cement top job is required if cement fallback is greater than 10' below ground level.

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Intermediate Casing – 9-5/8" Casing: TOC Surface, (Stage Tool at 2,100' – Stage_1 - 50% Excess, Stage_2 – 50% Excess)

CASING	SLURRY	FT. of FILL	CEMENT TYPE	SXS	XC (%)	WEIGHT (ppg)	YIELD (ft^3/sx)
9-5/8"	Stage_1 – Lead	1,500'	First Stage Lead Cement ECONOCEM; - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) - 1 % HR-5 (Retarder) - 0.2 % Super CBL (Expander)	340	50	12.2	2.16
9-5/8"	Stage_1 – Tail	1,200'	First Stage Tail Cement EXTENDACEM; - 0.5 % HR-5 (Retarder) - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) - 3 lbm/sk Gilsonite (Lost Circulation Additive)	450	50	14.2	1.29
9-5/8"	Stage_2 – Lead	2,100'	Second Stage Primary Cement ECONOCEM; - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) - 0.5 % HR-5 (Retarder) - 0.2 % Super CBL (Expander)	475	50	12.2	2.15

Cement volumes for the 9-5/8" Production Casing will be calculated to provide a top of cement to Surface.

All waiting on cement (WOC) times will be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

Production Casing – 7" Casing: TOC Surface, (35% Excess)

CASING	SLURRY	FT. of FILL	CEMENT TYPE	SXS	XC (%)	WEIGHT (ppg)	YIELD (ft^3/sx)
7"	Lead	4,375'	Lead Cement ECONOCEM; - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) - 0.8 % HR-5 (Retarder) - 0.2 % Super CBL (Expander)	375	35	12.2	2.15
7"	Tail	2,049'	Tail Cement EXTENDACEM; - 0.4 % HR-5 (Retarder) - 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)	310	35	14.2	1.29

Cement volumes for the 7" Production Casing will be calculated to provide a top of cement to Surface.

All waiting on cement (WOC) times will be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

6. MUD PROGRAM

Depth (MD)	Mud System	MW	PV	YP	FL
0 -1,1130'	Water, Gel/Lime Sweeps	8.4 – 9.0	2 - 20	2 - 18	NC
1,130' – 4,839'	3% KCL Water/Polymer	8.4 – 9.4	10 - 28	6 - 18	6 - 10
4,839' – 6,420'	3% KCL Water/Polymer	8.4 – 9.4	14 - 32	10 - 22	4 - 10
5,378' – 9,642'	3% KCL Water/Polymer	8.4 – 9.4	14 - 32	10 - 22	4 - 10

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7. EVALUATION PROGRAM

Cores: Horizontal Bore

DST: None planned

Surveys: Deviation surveys every 500' to TD in the surface, intermediate and production holes.

Mud Logger:
Samples: Samples taken in Vertical Bore

Open Hole Logging Program: Well previously logged

8. ABNORMAL CONDITIONS

No abnormal pressures are anticipated. No H_2S gas is anticipated.

Anticipated bottom hole pressure is 3,849 psi (0.433 psi/ft) at 6,420' TVD in the Humbug and the maximum anticipated surface pressure equals approximately 1,894 psi (anticipated bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot of hole).

9. ANTICIPATED STARTING DATES

A. Anticipated Starting Dates:

Spud: Original Spud Date 11/11/12

Duration: 35 – 45 days

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WHITING

Casing Summary

Well Name: WELLINGTON FLATS 15-11-18E

Well Information

API Number	WPC ID	Field Name	KB-Grd (ft)	Original Spud Date
43007503470000	1UT029801	Wildcat	16.50	11/11/2012

Lot	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Township	Twnshp...	Range	Rng E/...	County	State	Well Configuration Type
	SW	NW			18	15	S	11	E	Carbon	UT	Vertical

Wellbore Sections

Section Des	Size (in)	Act Top (ftKB)	Act Btm (ftKB)
Conductor	24	16.5	96.0
Surface	17 1/2	96.0	1,142.0
Intermediate	12 1/4	1,142.0	4,865.0
Production	8 1/2	4,865.0	6,420.0

Casing

Conductor Pipe, 80.0ftKB

Comment

Run Date	Set Depth (ftKB)	Set Tension (kips)	OD (in)	Centralizers	Scratchers
11/10/2012	80.0		20		

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top (ftKB)	Btm (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
2	Casing Joints	20	18.730				16.5	80.0	63.50		1,500.0

Surface Csg, 1,129.7ftKB

Comment

Run Date	Set Depth (ftKB)	Set Tension (kips)	OD (in)	Centralizers	Scratchers
11/14/2012	1,129.7		13 3/8	1 on first joint then one every third joint	

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top (ftKB)	Btm (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
24	Casing Joints	13 3/8	12.615	54.50	J-55		16.5	1,081.5	1,064.99		1,130.0
1	Float Collar	13 3/8	12.615				1,081.5	1,083.0	1.50		
1	Casing Joints	13 3/8	12.615	54.50	J-55		1,083.0	1,128.2	45.21		1,130.0
1	Shoe	13 3/8	12.615				1,128.2	1,129.7	1.50		

Intermediate, 4,838.8ftKB

Comment

Run Date	Set Depth (ftKB)	Set Tension (kips)	OD (in)	Centralizers	Scratchers
11/22/2012	4,838.8		9 5/8	1 On first joint then one every third joint.	

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top (ftKB)	Btm (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
0	Landing Joint	9 5/8	8.681	47.00	L-80		16.5	16.5	0.00		4,760.0
50	Casing Joints	9 5/8	8.681	47.00	L-80	LT&C	16.5	2,127.1	2,110.57		4,760.0
1	DV Tool	9 5/8				LT&C	2,127.1	2,128.6	1.50		
63	Casing Joints	9 5/8	8.681	47.00	L-80	LT&C	2,128.6	4,793.6	2,664.99		4,760.0
1	Float Collar	9 5/8	8.681	47.00	L-80	LT&C	4,793.6	4,795.1	1.50		
1	Casing Joints	9 5/8	8.681	47.00	L-80	LT&C	4,795.1	4,837.3	42.24		4,760.0
1	Shoe	9 5/8	8.681	47.00	L-80	LT&C	4,837.3	4,838.8	1.50		

Production Csg, 6,404.0ftKB

Comment

Run Date	Set Depth (ftKB)	Set Tension (kips)	OD (in)	Centralizers	Scratchers
12/3/2012	6,404.0		7		

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top (ftKB)	Btm (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
1	Landing Joint	7	6.184	29.00	HCL-80	LTC	16.5	21.0	4.50		
1	Casing Hanger	7	6.184	29.00	HCL-80	LTC	21.0	25.0	4.00		
133	Casing Joints	7	6.184	29.00	HCL-80	LTC	25.0	5,641.0	5,615.96		
1	Casing Joints	7	6.184	29.00	HCL-80	LTC	5,641.0	5,663.5	22.55		
12	Casing Joints	7	6.184	29.00	HCL-80	LTC	5,663.5	6,184.9	521.39		
4	Casing Joints	7	6.184	29.00	HCL-80	LTC	6,184.9	6,359.3	174.40		
1	Float Collar	7	6.184	29.00	HCL-80	LTC	6,359.3	6,360.3	1.00		
1	Casing Joints	7	6.184	29.00	HCL-80	LTC	6,360.3	6,403.0	42.70		
1	Float Shoe	7	6.184	29.00	HCL-80	LTC	6,403.0	6,404.0	1.00		

WHITING

Cement Summary

Well Name: WELLINGTON FLATS 15-11-18E

Well Information

API Number	WPC ID	Field Name	KB-Grd (ft)	Original Spud Date
43007503470000	1UT029801	Wildcat	16.50	11/11/2012

Lot	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Township	Twnshp...	Range	Rng E/...	County	State	Well Configuration Type
	SW	NW			18	15	S	11	E	Carbon	UT	Vertical

Wellbores

Wellbore Name	Profile Type	Kick Off Depth (ftKB)
Original Hole	Vertical	

Section Des	Size (in)	Act Top (ftKB)	Act Btm (ftKB)
Conductor	24	16.5	96.0
Surface	17 1/2	96.0	1,142.0
Intermediate	12 1/4	1,142.0	4,865.0
Production	8 1/2	4,865.0	6,420.0

Wellheads

Type	Install Date

Conductor Cement

Cementing Start Date	Cementing End Date	Wellbore
11/10/2012 13:30	11/10/2012 14:00	Original Hole

Evaluation Method	Cement Evaluation Results
Returns to Surface	

Comment

Stage #<Stage Number?>

Top Depth (ftKB)	Bottom Depth (ftKB)	Full Return?	Vol Cement Ret (bbl)	Top Plug?	Bottom Plug?
16.5	80.0	No		No	No

Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)	Final Pump Pressure (psi)	Plug Bump Pressure (psi)

Pipe Reciprocated?	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)	Pipe Rotated?	Pipe RPM (rpm)
No			No	

Tagged Depth (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)	Drill Out Diameter (in)	Drill Out Date

General

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
General				

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)
16.5	80.0			

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)

Cement Summary

Well Name: WELLINGTON FLATS 15-11-18E

Well Information

API Number	WPC ID	Field Name	KB-Grd (ft)	Original Spud Date
43007503470000	1UT029801	Wildcat	16.50	11/11/2012

Lot	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Township	Twnshp...	Range	Rng E/...	County	State	Well Configuration Type
	SW	NW			18	15	S	11	E	Carbon	UT	Vertical

Wellbores

Wellbore Name	Profile Type	Kick Off Depth (ftKB)
Original Hole	Vertical	

Section Des	Size (in)	Act Top (ftKB)	Act Btm (ftKB)
Conductor	24	16.5	96.0
Surface	17 1/2	96.0	1,142.0
Intermediate	12 1/4	1,142.0	4,865.0
Production	8 1/2	4,865.0	6,420.0

Wellheads

Type	Install Date

Surface Casing Cement

Cementing Start Date	Cementing End Date	Wellbore
11/14/2012 08:00	11/14/2012 13:00	Original Hole

Evaluation Method	Cement Evaluation Results
Returns to Surface	

Comment

Stage #2

Top Depth (ftKB)	Bottom Depth (ftKB)	Full Return?	Vol Cement Ret (bbl)	Top Plug?	Bottom Plug?
16.5	1,129.7	No	180.0	Yes	Yes

Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)	Final Pump Pressure (psi)	Plug Bump Pressure (psi)
4	3	4	182.0	

Pipe Reciprocated?	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)	Pipe Rotated?	Pipe RPM (rpm)
No			No	

Tagged Depth (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)	Drill Out Diameter (in)	Drill Out Date

Spacer

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Spacer	10 bbl fresh water,40 bbls of Superflush ,20 bbls of Fresh Water			70.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	8.30			

Lead Cement

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Lead Cement	Rockies LT-SBM	480	G	251.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)
16.5	550.0			5.02

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	11.50			

Cement Fluid Additives

Add	Type	Amount	Amount Units	Conc	Conc Unit
Artificial Pozzolan				2.0	%
ECONOLITE				2.0	%
FRESH WATER		17.83	gal		%
Poly E Flake		0.125	lbm		
VERSA SET				0.3	%
Kwik Seal	Lost Circulation Additive	0.25	lbm		

Tail Cement

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Tail Cement	Premium Class G	610	G	125.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)
550.0	1,129.7			

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	15.80			

Cement Fluid Additives

Add	Type	Amount	Amount Units	Conc	Conc Unit
					%
CaCl2				2.0	%
FRESH WATER		5.019	gal		%
POLY E FLAKE		0.125	lbm		%

Cement Summary

Well Name: WELLINGTON FLATS 15-11-18E

Well Information

API Number	WPC ID	Field Name	KB-Grd (ft)	Original Spud Date
43007503470000	1UT029801	Wildcat	16.50	11/11/2012

Lot	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Township	Twnshp...	Range	Rng E/...	County	State	Well Configuration Type
	SW	NW			18	15	S	11	E	Carbon	UT	Vertical

Displacement

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Displacement	Fresh Water			167.5

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	8.34			

Cement Summary

Well Name: WELLINGTON FLATS 15-11-18E

Well Information

API Number	WPC ID	Field Name	KB-Grd (ft)	Original Spud Date
43007503470000	1UT029801	Wildcat	16.50	11/11/2012

Lot	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Township	Twnshp...	Range	Rng E/...	County	State	Well Configuration Type
	SW	NW			18	15	S	11	E	Carbon	UT	Vertical

Wellbores

Wellbore Name	Profile Type	Kick Off Depth (ftKB)
Original Hole	Vertical	

Section Des	Size (in)	Act Top (ftKB)	Act Btm (ftKB)
Conductor	24	16.5	96.0
Surface	17 1/2	96.0	1,142.0
Intermediate	12 1/4	1,142.0	4,865.0
Production	8 1/2	4,865.0	6,420.0

Wellheads

Type	Install Date

Intermediate Casing Cement

Cementing Start Date	Cementing End Date	Wellbore
11/22/2012 19:00	11/23/2012 03:30	Original Hole

Evaluation Method	Cement Evaluation Results
Volume Calculations	

Comment: Had full returns during the complete job.

Stage #1

Top Depth (ftKB)	Bottom Depth (ftKB)	Full Return?	Vol Cement Ret (bbl)	Top Plug?	Bottom Plug?
2,127.1	4,838.8	Yes	0.0	No	Yes

Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)	Final Pump Pressure (psi)	Plug Bump Pressure (psi)
6	3	6	475.0	

Pipe Reciprocaled?	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)	Pipe Rotated?	Pipe RPM (rpm)
No			No	

Tagged Depth (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)	Drill Out Diameter (in)	Drill Out Date

Preflush

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Preflush	Water		Water	

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	8.30			

Lead Cement

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Lead Cement	Lead cement slurry	340	EconoCem	130.2

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)
2,481.0	4,036.0	0.0	2.15	11.96

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	12.20			

Cement Fluid Additives

Add	Type	Amount	Amount Units	Conc	Conc Unit
Poly-E-Flake	Pre-mix Dry	0.125	lbs/sk		
Super CBL	Pre-mix Dry	50.0	bbl		

Tail Cement

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Tail Cement	Tail slurry	400	ExtendaCem	70.5

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)
4,036.0	4,838.8	0.0	1.32	5.79

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	14.20			

Cement Fluid Additives

Add	Type	Amount	Amount Units	Conc	Conc Unit
Halad(R)-413	Pre-mix Dry	50.0	lb		
Super CBL	Pre-mix Dry	50.0	lb		

Displacement

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Displacement			9.2 Waterbase mud	

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	9.20			

Cement Summary

Well Name: WELLINGTON FLATS 15-11-18E

Well Information

API Number	WPC ID	Field Name	KB-Grd (ft)	Original Spud Date
43007503470000	1UT029801	Wildcat	16.50	11/11/2012

Lot	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Township	Twnshp...	Range	Rng E/...	County	State	Well Configuration Type
	SW	NW			18	15	S	11	E	Carbon	UT	Vertical

Stage #2

Top Depth (ftKB)	Bottom Depth (ftKB)	Full Return?	Vol Cement Ret (bbl)	Top Plug?	Bottom Plug?
16.5	2,127.0	No	49.0	No	Yes

Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)	Final Pump Pressure (psi)	Plug Bump Pressure (psi)
6	1	6	360.0	2,000.0

Pipe Reciprocated?	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)	Pipe Rotated?	Pipe RPM (rpm)
No			No	

Tagged Depth (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)	Drill Out Diameter (in)	Drill Out Date

Preflush

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Preflush		0	Water	

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	8.30			

Lead Cement

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Lead Cement		475	EconoCem	181.9

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)
16.5	1,707.0	0.0	2.15	11.92

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	12.20			

Cement Fluid Additives

Add	Type	Amount	Amount Units	Conc	Conc Unit
SUPER CBL		50.0	lb		
POLEY-E-FLAKE	DRY	0.125	LBM		

Tail Cement

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Tail Cement		100		23.5

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)
1,707.0	2,127.0		1.32	5.79

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	14.20			

Cement Fluid Additives

Add	Type	Amount	Amount Units	Conc	Conc Unit
SUPER CBL		0.2	%		
POLEY-E-FLAKE	DRY	0.125	LBM		

Displacement

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Displacement		0		

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	9.20			

Cement Summary

Well Name: WELLINGTON FLATS 15-11-18E

Well Information

API Number	WPC ID	Field Name	KB-Grd (ft)	Original Spud Date
43007503470000	1UT029801	Wildcat	16.50	11/11/2012

Lot	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Township	Twnshp...	Range	Rng E/...	County	State	Well Configuration Type
	SW	NW			18	15	S	11	E	Carbon	UT	Vertical

Wellbores

Wellbore Name	Profile Type	Kick Off Depth (ftKB)
Original Hole	Vertical	

Section Des	Size (in)	Act Top (ftKB)	Act Btm (ftKB)
Conductor	24	16.5	96.0
Surface	17 1/2	96.0	1,142.0
Intermediate	12 1/4	1,142.0	4,865.0
Production	8 1/2	4,865.0	6,420.0

Wellheads

Type	Install Date

Production Casing Cement

Cementing Start Date	Cementing End Date	Wellbore
12/3/2012 14:30	12/3/2012 16:30	Original Hole

Evaluation Method	Cement Evaluation Results
Volume Calculations	Cement ot surface

Comment

Stage #1

Top Depth (ftKB)	Bottom Depth (ftKB)	Full Return?	Vol Cement Ret (bbl)	Top Plug?	Bottom Plug?
16.5	4,375.0	No	25.0	No	No

Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)	Final Pump Pressure (psi)	Plug Bump Pressure (psi)
6	6	6	180.0	

Pipe Reciprocated?	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)	Pipe Rotated?	Pipe RPM (rpm)
No			No	

Tagged Depth (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)	Drill Out Diameter (in)	Drill Out Date

Lead Cement

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Lead Cement		375	Econocem	137.0

Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)
0.0	4,375.0	0.0	2.05	11.08

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	12.50			

Cement Fluid Additives

Add	Type	Amount	Amount Units	Conc	Conc Unit
HR-800		50.0	lb	0.4	%
Poly-E-Flake		0.125	lbm		%

Stage #2

Top Depth (ftKB)	Bottom Depth (ftKB)	Full Return?	Vol Cement Ret (bbl)	Top Plug?	Bottom Plug?
4,375.0	6,404.0	No		No	No

Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)	Final Pump Pressure (psi)	Plug Bump Pressure (psi)
6	2	6	2,240.0	2,240.0

Pipe Reciprocated?	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)	Pipe Rotated?	Pipe RPM (rpm)
No			No	

Tagged Depth (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)	Drill Out Diameter (in)	Drill Out Date

Tail Cement

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Tail Cement		310	Extenda-Cem	69.0

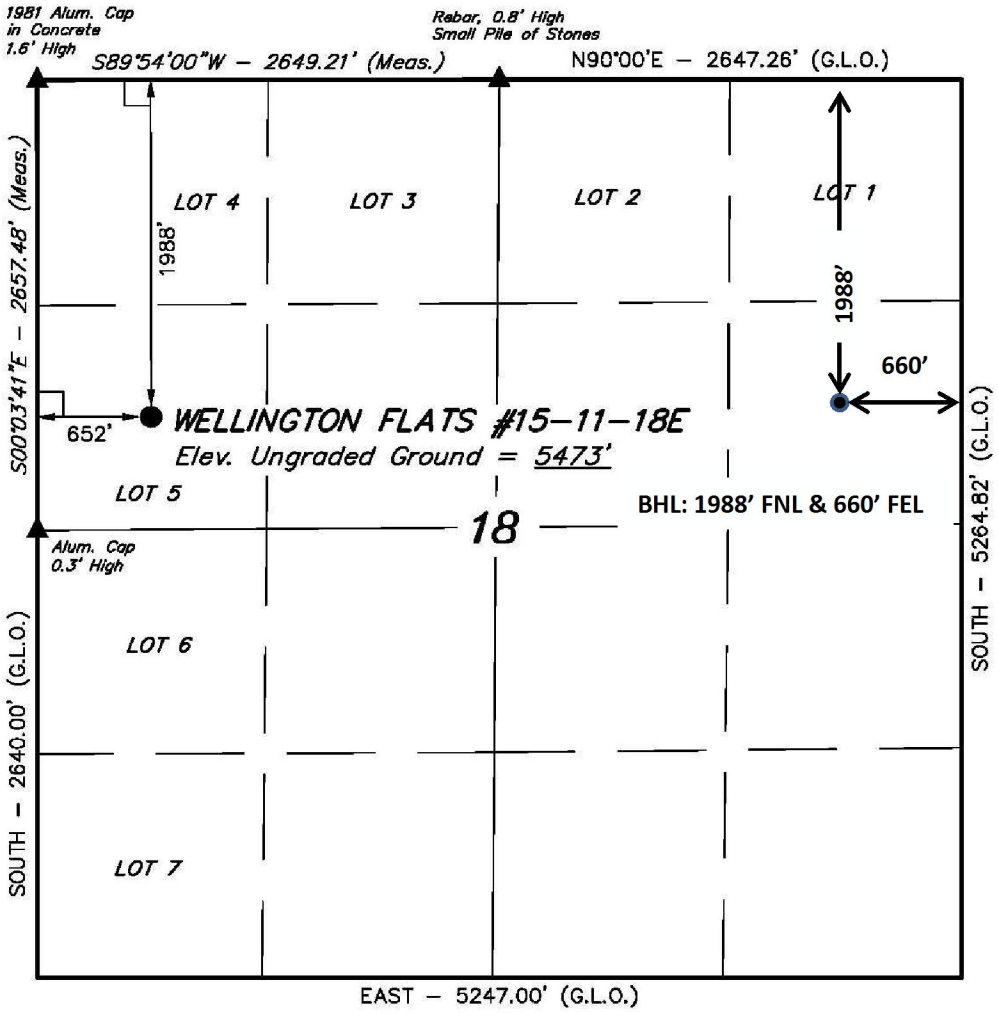
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H20 Ratio (gal/sack)
4,375.0	6,404.0	35.0	1.25	5.46

Free Water (%)	Density (lb/gal)	Plastic Viscosity (cp)	Thickening Time (hr)	1st Compressive Strength (psi)
	14.20			

Cement Fluid Additives

Add	Type	Amount	Amount Units	Conc	Conc Unit
HR-5		50.0	lb	0.3	%
POLY-E-FLAKE			LBM	0.125	lbm

T15S, R11E, S.L.B.&M.



WHITING OIL & GAS CORP.

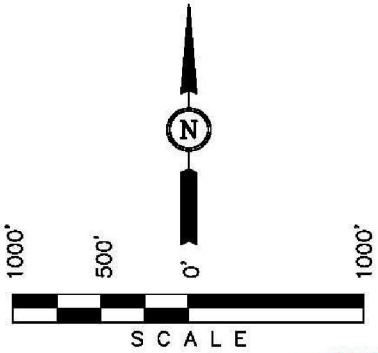
Well location, WELLINGTON FLATS #15–11–18E, located as shown in Lot 5 of Section 18, T15S, R11E, S.L.B.&M., Carbon County, Utah.

BASIS OF ELEVATION

SPOT ELEVATION AT A ROAD INTERSECTION LOCATED IN THE SW 1/4 OF SECTION 18, T15S, R11E, S.L.B.&M. TAKEN FROM THE WELLINGTON QUADRANGLE, UTAH, CARBON COUNTY, 7.5 MINUTE QUAD (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5455 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

05-04-12

LEGEND:

- = 90° SYMBOL
- ● = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

NAD 83 (SURFACE LOCATION)	
LATITUDE	39°31'20.48" (39.522356)
LONGITUDE	110°44'15.72" (110.737700)
NAD 27 (SURFACE LOCATION)	
LATITUDE	39°31'20.61" (39.522392)
LONGITUDE	110°44'13.15" (110.736986)

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST – VERNAL, UTAH 84078
(435) 789–1017

SCALE: 1" = 1000'	DATE SURVEYED: 04–12–12	DATE DRAWN: 04–13–12
PARTY: G.O. S.W. R.L.L.	REFERENCES: G.L.O. PLAT	
WEATHER: COOL	FILE: WHITING OIL & GAS CORP.	

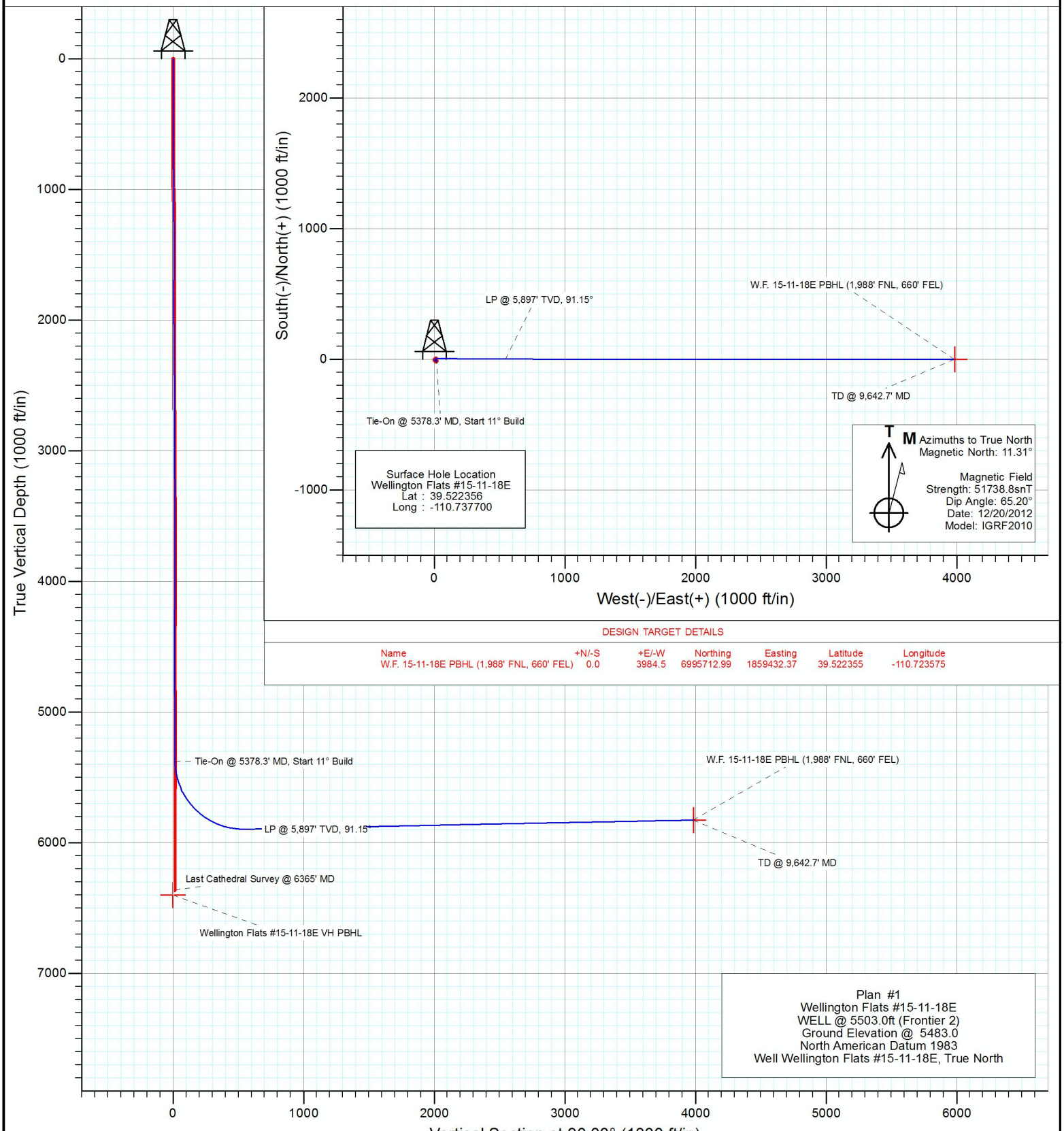
WHITING PETROLEUM CORPORATION

Project: Carbon County, UT
Site: S18-T15S-R11E
Well: Wellington Flats #15-11-18E
Wellbore: HZ
Design: Plan #1

CATHEDRAL

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	5378.3	0.42	153.87	5377.9	6.2	16.3	0.00	0.00	16.3	
2	6205.2	91.15	90.04	5897.0	2.3	547.7	11.00	-63.82	547.7	
3	9642.7	91.15	90.04	5828.0	0.0	3984.5	0.00	0.00	3984.5	W.F. 15-11-18E PBHL (1,988' FNL, 660' FEL)



DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
W.F. 15-11-18E PBHL (1,988' FNL, 660' FEL)	0.0	3984.5	6995712.99	1859432.37	39.522355	-110.723575

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Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Wellington Flats #15-11-18E
Company:	Whiting Petroleum Corporation	**TVD Reference:**	WELL @ 5503.0ft (Frontier 2)
Project:	Carbon County, UT	**MD Reference:**	WELL @ 5503.0ft (Frontier 2)
Site:	S18-T15S-R11E	**North Reference:**	True
Well:	Wellington Flats #15-11-18E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Project	Carbon County, UT		
Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Utah Central Zone		

Site	S18-T15S-R11E				
Site Position:		**Northing:**	6,995,679.03 ft	**Latitude:**	39.522356
From:	Lat/Long	**Easting:**	1,855,448.04 ft	**Longitude:**	-110.737700
Position Uncertainty:	0.0 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.49 °

Well	Wellington Flats #15-11-18E					
Well Position	**+N/-S**	0.0 ft	**Northing:**	6,995,679.02 ft	**Latitude:**	39.522356
	+E/-W	0.0 ft	**Easting:**	1,855,448.04 ft	**Longitude:**	-110.737700
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	5,483.0 ft

Wellbore	HZ				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	12/20/2012	11.31	65.20	51,739

Design	Plan #1				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	5,378.3
Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**	
	0.0	0.0	0.0	90.00	

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
5,378.3	0.42	153.87	5,377.9	6.2	16.3	0.00	0.00	0.00	0.00	
6,205.2	91.15	90.04	5,897.0	2.3	547.7	11.00	10.97	-7.72	-63.82	
9,642.7	91.15	90.04	5,828.0	0.0	3,984.5	0.00	0.00	0.00	0.00	W.F. 15-11-18E PBHl

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Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Wellington Flats #15-11-18E
Company:	Whiting Petroleum Corporation	**TVD Reference:**	WELL @ 5503.0ft (Frontier 2)
Project:	Carbon County, UT	**MD Reference:**	WELL @ 5503.0ft (Frontier 2)
Site:	S18-T15S-R11E	**North Reference:**	True
Well:	Wellington Flats #15-11-18E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
132.0	0.40	142.60	132.0	-0.4	0.3	0.3	0.30	0.30	
193.0	0.60	138.20	193.0	-0.8	0.6	0.6	0.33	0.33	
256.0	0.60	133.30	256.0	-1.2	1.1	1.1	0.08	0.00	
349.0	1.10	126.50	349.0	-2.1	2.2	2.2	0.55	0.54	
443.0	0.70	122.80	443.0	-3.0	3.4	3.4	0.43	-0.43	
536.0	0.20	198.90	536.0	-3.4	3.8	3.8	0.73	-0.54	
630.0	0.10	282.60	630.0	-3.6	3.7	3.7	0.23	-0.11	
722.0	0.10	142.30	722.0	-3.6	3.6	3.6	0.20	0.00	
817.0	0.20	142.50	817.0	-3.8	3.8	3.8	0.11	0.11	
912.0	0.50	131.20	912.0	-4.2	4.2	4.2	0.32	0.32	
949.0	0.60	126.40	949.0	-4.4	4.5	4.5	0.30	0.27	
1,007.0	2.00	127.70	1,006.9	-5.2	5.5	5.5	2.41	2.41	
1,087.0	1.00	130.80	1,086.9	-6.5	7.1	7.1	1.25	-1.25	
1,132.0	1.40	120.60	1,131.9	-7.1	7.9	7.9	1.00	0.89	
1,164.0	1.30	122.70	1,163.9	-7.5	8.6	8.6	0.35	-0.31	
1,195.0	0.60	134.80	1,194.9	-7.8	9.0	9.0	2.34	-2.26	
1,259.0	0.40	158.90	1,258.9	-8.2	9.3	9.3	0.45	-0.31	
1,322.0	0.10	196.10	1,321.9	-8.5	9.4	9.4	0.52	-0.48	
1,416.0	0.10	242.40	1,415.9	-8.6	9.3	9.3	0.08	0.00	
1,511.0	0.00	233.00	1,510.9	-8.6	9.2	9.2	0.11	-0.11	
1,606.0	0.20	196.70	1,605.9	-8.8	9.1	9.1	0.21	0.21	
1,700.0	0.50	239.10	1,699.9	-9.2	8.7	8.7	0.40	0.32	
1,795.0	0.70	214.60	1,794.9	-9.8	8.0	8.0	0.34	0.21	
1,889.0	0.10	14.10	1,888.9	-10.2	7.7	7.7	0.85	-0.64	
1,984.0	0.20	358.30	1,983.9	-10.0	7.8	7.8	0.11	0.11	
2,078.0	0.40	110.80	2,077.9	-9.9	8.1	8.1	0.54	0.21	
2,173.0	0.60	139.10	2,172.9	-10.4	8.7	8.7	0.33	0.21	
2,267.0	1.00	127.40	2,266.9	-11.3	9.7	9.7	0.46	0.43	
2,362.0	0.40	148.80	2,361.9	-12.1	10.5	10.5	0.68	-0.63	
2,425.0	0.50	151.50	2,424.9	-12.5	10.7	10.7	0.16	0.16	
2,520.0	0.40	154.30	2,519.9	-13.2	11.1	11.1	0.11	-0.11	
2,584.0	0.30	151.00	2,583.9	-13.5	11.3	11.3	0.16	-0.16	
2,678.0	0.20	181.60	2,677.9	-13.9	11.4	11.4	0.17	-0.11	
2,773.0	0.40	95.80	2,772.9	-14.1	11.7	11.7	0.46	0.21	
2,868.0	0.60	128.80	2,867.9	-14.5	12.4	12.4	0.36	0.21	
2,910.0	0.40	106.90	2,909.8	-14.6	12.7	12.7	0.65	-0.48	
2,963.0	0.50	108.30	2,962.8	-14.8	13.1	13.1	0.19	0.19	
3,026.0	0.40	112.80	3,025.8	-14.9	13.6	13.6	0.17	-0.16	
3,121.0	0.50	137.00	3,120.8	-15.4	14.2	14.2	0.22	0.11	
3,216.0	0.40	19.70	3,215.8	-15.4	14.6	14.6	0.81	-0.11	
3,310.0	0.30	76.90	3,309.8	-15.0	14.9	14.9	0.37	-0.11	
3,406.0	0.50	358.80	3,405.8	-14.5	15.2	15.2	0.55	0.21	
3,512.0	0.70	55.50	3,511.8	-13.7	15.7	15.7	0.56	0.19	
3,595.0	0.70	45.70	3,594.8	-13.1	16.5	16.5	0.14	0.00	
3,689.0	0.50	23.80	3,688.8	-12.3	17.0	17.0	0.32	-0.21	
3,784.0	0.50	353.00	3,783.8	-11.5	17.2	17.2	0.28	0.00	
3,879.0	0.40	345.70	3,878.8	-10.8	17.0	17.0	0.12	-0.11	
3,974.0	0.70	330.20	3,973.8	-9.9	16.7	16.7	0.35	0.32	
4,069.0	0.80	336.80	4,068.8	-8.8	16.1	16.1	0.14	0.11	
4,164.0	1.00	317.00	4,163.8	-7.6	15.3	15.3	0.39	0.21	
4,259.0	0.60	332.40	4,258.8	-6.5	14.5	14.5	0.47	-0.42	

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Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Wellington Flats #15-11-18E
Company:	Whiting Petroleum Corporation	**TVD Reference:**	WELL @ 5503.0ft (Frontier 2)
Project:	Carbon County, UT	**MD Reference:**	WELL @ 5503.0ft (Frontier 2)
Site:	S18-T15S-R11E	**North Reference:**	True
Well:	Wellington Flats #15-11-18E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,354.0	1.10	339.90	4,353.8	-5.3	13.9	13.9	0.54	0.53	
4,449.0	1.20	351.90	4,448.8	-3.4	13.5	13.5	0.27	0.11	
4,544.0	1.20	353.70	4,543.7	-1.4	13.2	13.2	0.04	0.00	
4,638.0	1.30	352.10	4,637.7	0.6	13.0	13.0	0.11	0.11	
4,863.0	1.00	42.50	4,862.7	4.6	14.0	14.0	0.45	-0.13	
4,895.0	0.90	47.80	4,894.7	4.9	14.3	14.3	0.42	-0.31	
4,926.0	1.00	62.00	4,925.7	5.2	14.8	14.8	0.82	0.32	
4,958.0	1.00	67.80	4,957.7	5.5	15.3	15.3	0.32	0.00	
4,990.0	1.10	70.70	4,989.6	5.7	15.8	15.8	0.35	0.31	
5,021.0	0.50	48.40	5,020.6	5.9	16.2	16.2	2.15	-1.94	
5,053.0	0.30	345.60	5,052.6	6.0	16.3	16.3	1.41	-0.62	
5,085.0	0.50	327.30	5,084.6	6.2	16.2	16.2	0.73	0.62	
5,117.0	0.40	315.50	5,116.6	6.4	16.0	16.0	0.42	-0.31	
5,148.0	0.10	310.90	5,147.6	6.5	15.9	15.9	0.97	-0.97	
5,180.0	0.20	322.00	5,179.6	6.6	15.9	15.9	0.32	0.31	
5,212.0	0.10	88.80	5,211.6	6.6	15.9	15.9	0.85	-0.31	
5,243.0	0.10	76.70	5,242.6	6.6	15.9	15.9	0.07	0.00	
5,275.0	0.10	101.30	5,274.6	6.6	16.0	16.0	0.13	0.00	
5,307.0	0.20	143.30	5,306.6	6.6	16.0	16.0	0.44	0.31	
5,338.0	0.50	145.40	5,337.6	6.4	16.1	16.1	0.97	0.97	
5,365.0	0.50	138.70	5,364.6	6.3	16.3	16.3	0.22	0.00	
5,378.3	0.42	153.87	5,377.9	6.2	16.3	16.3	1.08	-0.58	Tie-On @ 5378.3' MD, Start 11° Build
5,400.0	2.60	98.42	5,399.6	6.0	16.9	16.9	11.00	10.04	
5,450.0	8.08	92.72	5,449.4	5.7	21.5	21.5	11.00	10.96	
5,500.0	13.58	91.62	5,498.5	5.4	30.9	30.9	11.00	10.99	
5,550.0	19.08	91.14	5,546.5	5.0	44.9	44.9	11.00	11.00	
5,600.0	24.58	90.87	5,592.9	4.7	63.5	63.5	11.00	11.00	
5,650.0	30.08	90.70	5,637.3	4.4	86.5	86.5	11.00	11.00	
5,700.0	35.58	90.58	5,679.3	4.1	113.6	113.6	11.00	11.00	
5,750.0	41.07	90.48	5,718.5	3.8	144.5	144.5	11.00	11.00	
5,800.0	46.57	90.40	5,754.5	3.5	179.2	179.2	11.00	11.00	
5,850.0	52.07	90.34	5,787.1	3.3	217.1	217.1	11.00	11.00	
5,900.0	57.57	90.29	5,815.9	3.1	257.9	257.9	11.00	11.00	
5,950.0	63.07	90.24	5,840.6	2.9	301.3	301.3	11.00	11.00	
6,000.0	68.57	90.19	5,861.1	2.7	346.9	346.9	11.00	11.00	
6,050.0	74.07	90.15	5,877.1	2.6	394.3	394.3	11.00	11.00	
6,100.0	79.57	90.12	5,888.5	2.4	442.9	442.9	11.00	11.00	
6,150.0	85.07	90.08	5,895.2	2.4	492.5	492.5	11.00	11.00	
6,200.0	90.57	90.04	5,897.1	2.3	542.4	542.4	11.00	11.00	
6,205.2	91.15	90.04	5,897.0	2.3	547.7	547.7	11.00	11.00	LP @ 5,897' TVD, 91.15°
6,300.0	91.15	90.04	5,895.1	2.2	642.4	642.4	0.00	0.00	
6,400.0	91.15	90.04	5,893.1	2.2	742.4	742.4	0.00	0.00	
6,500.0	91.15	90.04	5,891.1	2.1	842.4	842.4	0.00	0.00	
6,600.0	91.15	90.04	5,889.1	2.0	942.3	942.3	0.00	0.00	
6,700.0	91.15	90.04	5,887.1	2.0	1,042.3	1,042.3	0.00	0.00	
6,800.0	91.15	90.04	5,885.1	1.9	1,142.3	1,142.3	0.00	0.00	
6,900.0	91.15	90.04	5,883.1	1.8	1,242.3	1,242.3	0.00	0.00	
7,000.0	91.15	90.04	5,881.0	1.8	1,342.3	1,342.3	0.00	0.00	
7,100.0	91.15	90.04	5,879.0	1.7	1,442.2	1,442.2	0.00	0.00	
7,200.0	91.15	90.04	5,877.0	1.6	1,542.2	1,542.2	0.00	0.00	
7,300.0	91.15	90.04	5,875.0	1.6	1,642.2	1,642.2	0.00	0.00	
7,400.0	91.15	90.04	5,873.0	1.5	1,742.2	1,742.2	0.00	0.00	

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Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Wellington Flats #15-11-18E
Company:	Whiting Petroleum Corporation	**TVD Reference:**	WELL @ 5503.0ft (Frontier 2)
Project:	Carbon County, UT	**MD Reference:**	WELL @ 5503.0ft (Frontier 2)
Site:	S18-T15S-R11E	**North Reference:**	True
Well:	Wellington Flats #15-11-18E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
7,500.0	91.15	90.04	5,871.0	1.4	1,842.2	1,842.2	0.00	0.00	
7,600.0	91.15	90.04	5,869.0	1.4	1,942.1	1,942.1	0.00	0.00	
7,700.0	91.15	90.04	5,867.0	1.3	2,042.1	2,042.1	0.00	0.00	
7,800.0	91.15	90.04	5,865.0	1.2	2,142.1	2,142.1	0.00	0.00	
7,900.0	91.15	90.04	5,863.0	1.2	2,242.1	2,242.1	0.00	0.00	
8,000.0	91.15	90.04	5,861.0	1.1	2,342.1	2,342.1	0.00	0.00	
8,100.0	91.15	90.04	5,859.0	1.0	2,442.0	2,442.0	0.00	0.00	
8,200.0	91.15	90.04	5,857.0	1.0	2,542.0	2,542.0	0.00	0.00	
8,300.0	91.15	90.04	5,855.0	0.9	2,642.0	2,642.0	0.00	0.00	
8,400.0	91.15	90.04	5,852.9	0.8	2,742.0	2,742.0	0.00	0.00	
8,500.0	91.15	90.04	5,850.9	0.8	2,842.0	2,842.0	0.00	0.00	
8,600.0	91.15	90.04	5,848.9	0.7	2,941.9	2,941.9	0.00	0.00	
8,700.0	91.15	90.04	5,846.9	0.6	3,041.9	3,041.9	0.00	0.00	
8,800.0	91.15	90.04	5,844.9	0.6	3,141.9	3,141.9	0.00	0.00	
8,900.0	91.15	90.04	5,842.9	0.5	3,241.9	3,241.9	0.00	0.00	
9,000.0	91.15	90.04	5,840.9	0.4	3,341.9	3,341.9	0.00	0.00	
9,100.0	91.15	90.04	5,838.9	0.4	3,441.8	3,441.8	0.00	0.00	
9,200.0	91.15	90.04	5,836.9	0.3	3,541.8	3,541.8	0.00	0.00	
9,300.0	91.15	90.04	5,834.9	0.2	3,641.8	3,641.8	0.00	0.00	
9,400.0	91.15	90.04	5,832.9	0.2	3,741.8	3,741.8	0.00	0.00	
9,500.0	91.15	90.04	5,830.9	0.1	3,841.8	3,841.8	0.00	0.00	
9,600.0	91.15	90.04	5,828.9	0.0	3,941.7	3,941.7	0.00	0.00	
9,642.7	91.15	90.04	5,828.0	0.0	3,984.5	3,984.5	0.00	0.00	TD @ 9,642.7' MD

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
W.F. 15-11-18E PBHL (1 - plan hits target center - Point	0.00	0.00	5,828.0	0.0	3,984.5	6,995,712.99	1,859,432.37	39.522355	-110.723575

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
5,378.3	5,377.9	6.2	16.3	Tie-On @ 5378.3' MD, Start 11° Build
6,205.2	5,897.0	2.3	547.7	LP @ 5,897' TVD, 91.15°
9,642.7	5,828.0	0.0	3,984.5	TD @ 9,642.7' MD

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-49795

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Wellington Flats 15-11-18E

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER:
43007503470000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER:
303 390-4095 Ext

9. FIELD and POOL or WILDCAT:
UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
1988 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWNW Section: 18 Township: 15.0S Range: 11.0E Meridian: S

COUNTY:
CARBON

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
✓ SUBSEQUENT REPORT Date of Work Completion: 12/31/2012	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: Completion update

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU, swab FL to 3000'. Run CBL. RIH, perf Kaibab fmn 6194'-6208', 84 holes, 6 spf. TIH w/pkr & 190jts 2 7/8" tbg, set pkr @ 6140'. Press test lines to 6500#. Load csg w/7% CKI wtr, press test csg to 2000#. Acidize w/2000gals 15% HCl @ 1 bpm, 5550#, pump 100 gals acid w/no ball sealers, space 126 7/8" RCN balls 1/3 dens in next 1000gals of acid. Press declined w/acid on perfs. Gradually increase rate to 4.8 bpm w/ATP 4400#. Flush w/ 7% KCl water, ISIP 2995#. SI 1hr. RU swab, FL at surface, swab back 62 bbls load water & blow of acid gas. Blow down acid gas, con't to swab, FL at 2900', rec'd 27 bbls of load water and acid gas in 7 runs, swab to SN. Rec'd 89 bbls of 126 bbls used. SI until 01/02/2013.

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Pauleen Tobin	303 390-4267	Engineer Tech
SIGNATURE		**DATE**
N/A		2/5/2013

RECEIVED: Feb. 05, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-49795

SUNDRY NOTICES AND REPORTS ON WELLS

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6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Wellington Flats 15-11-18E

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER:
43007503470000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER:
303 390-4095 Ext

9. FIELD and POOL or WILDCAT:
UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
1988 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWNW Section: 18 Township: 15.0S Range: 11.0E Meridian: S

COUNTY:
CARBON

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
✓ SUBSEQUENT REPORT Date of Work Completion: 1/31/2013	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: Completion Update

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Blow 900# tbg press off well, resume swabbing, recovering water and gas blows, no oil. Gas gradually increasing. Release pkr, POOH. RIH w/kill string, retrieve water samples. POOH. RIH, set CIPB at 6180', dump 2sx cmt on top. POOH. RIH w/4" perf gun, 6 spf, perf TXS fmn at 5894'-98'. POOH. Press test lines to 6500#, pump DFIT @ 5.1 bpm, ISIP 2650#. Close TIW vlv. Back on well, FL @ 687', POOH w/gauges, pump 2000 gal MSA 15%-SBM acid job, ISIP 2605#, max press 3709#, avg press 3136#, max bpm 4.9, avg bpm 4.0. Swab back 62 of 116 bbls over 4 days. POOH. RIH w/4" guns, perf 5886-92', 5914-18'. POOH. RIH, fill backside w/115 bbls 7% KCl water, press test to 2000#. Lv press on backside while breaking down new perfs. Drop 60 balls and 65 bbls, press @ 3500#. No ball action. Swab FL from surface to 5700' by day's end. Continue swabbing. SWI, build gas press. Run gas sample. Resume swabbing.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
February 22, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Pauleen Tobin	303 390-4267	Engineer Tech
SIGNATURE		**DATE**
N/A		2/5/2013

RECEIVED: Feb. 05, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-49795

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Wellington Flats 15-11-18E

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER:
43007503470000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER:
303 390-4095 Ext

9. FIELD and POOL or WILDCAT:
UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
1988 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWNW Section: 18 Township: 15.0S Range: 11.0E Meridian: S

COUNTY:
CARBON

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
✓ SUBSEQUENT REPORT Date of Work Completion: 1/31/2013	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: Monthly Completion Stat

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

1/1/2013 - 1/31/2013 Blow 900# TP off well, resume swabbing, recovering water and gas blows, no oil. Gas gradually increasing. Release pkr, POOH. RIH w/kill string, retrieve water samples. POOH. Set CIPB at 6180', dump 2sx cmt on top. RIH w/4" perf gun, 6 spf, perf TXS fmn at 5894'-98'. POOH. Press test lines to 6500#, pump DFIT @ 5.1 bpm, ISIP 2650#. Close TIW vlv. Back on well, FL @ 687', POOH w/gauges, pump 2000 gal MSA 15%-SBM acid job, ISIP 2605#, max press 3709#, avg press 3136#, max bpm 4.9, avg bpm 4.0. Swab back 62 of 116 bbls over 4 days. RIH w/4" guns, perf 5886-92', 5914-18'. POOH. Fill backside w/115 bbls 7% KCl water, press test to 2000#. Lv press on backside, break down new perfs. Drop 60 balls and 65 bbls, press @ 3500#. No ball action. Swab FL fr/surface to 570' by day's end. Cont swabbing. SWI, build gas press. Run gas sample. Resume swabbing.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
May 22, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Pauleen Tobin	303 390-4267	Engineer Tech
SIGNATURE		**DATE**
N/A		5/7/2013

RECEIVED: May. 07, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-49795

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Wellington Flats 15-11-18E

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER:
43007503470000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER:
303 390-4095 Ext

9. FIELD and POOL or WILDCAT:
UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
1988 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWNW Section: 18 Township: 15.0S Range: 11.0E Meridian: S

COUNTY:
CARBON

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☑ SUBSEQUENT REPORT Date of Work Completion: 2/28/2013	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☑ OTHER	OTHER: Monthly Completion Stat

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

2/1/2013 - 2/17/2013 Continue swabbing for another week, release rig crew. Samples retrieved. POOH. Change over to tbghd for drilling rig. RDMOSU. Turn well over to drilling for re-entry spud.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
May 07, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Pauleen Tobin	303 390-4267	Engineer Tech
SIGNATURE		**DATE**
N/A		5/7/2013

RECEIVED: May. 07, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-49795

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Wellington Flats 15-11-18E

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER:
43007503470000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER:
303 390-4095 Ext

9. FIELD and POOL or WILDCAT:
UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
1988 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWNW Section: 18 Township: 15.0S Range: 11.0E Meridian: S

COUNTY:
CARBON

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☑ SUBSEQUENT REPORT Date of Work Completion: 2/28/2013	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☑ OTHER	OTHER: Status Update Feb 2013

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

2/1/2013 - 2/17/2013 Continue swabbing for another week, release rig crew. Samples retrieved. POOH. Change over to tbghd for drilling rig. RDMOSU. Turn well over to drilling.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
June 12, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Pauleen Tobin	303 390-4267	Engineer Tech
SIGNATURE		**DATE**
N/A		6/12/2013

RECEIVED: Jun. 12, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-49795

SUNDRY NOTICES AND REPORTS ON WELLS

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7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Wellington Flats 15-11-18E

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER:
43007503470000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER:
303 390-4095 Ext

9. FIELD and POOL or WILDCAT:
UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
1988 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWNW Section: 18 Township: 15.0S Range: 11.0E Meridian: S

COUNTY:
CARBON

STATE:
UTAH

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TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
✓ SUBSEQUENT REPORT Date of Work Completion: 3/31/2013	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: Status Update Mar 2013

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

3/22/2013 - 3/31/2013 MIRUSU. SLM in hole w/tooth bit and scraper, tag RSI @ 9302'. POOH, RIH w tapered mill, circ, wash to 9352'. Circ well clean. POOH. Preparing to frac.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
June 27, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Pauleen Tobin	303 390-4267	Engineer Tech
SIGNATURE		**DATE**
N/A		6/12/2013

RECEIVED: Jun. 12, 2013

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-49795

SUNDRY NOTICES AND REPORTS ON WELLS

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7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Wellington Flats 15-11-18E

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER:
43007503470000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER:
303 390-4095 Ext

9. FIELD and POOL or WILDCAT:
UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
1988 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWNW Section: 18 Township: 15.0S Range: 11.0E Meridian: S

COUNTY:
CARBON

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
✓ SUBSEQUENT REPORT Date of Work Completion: 4/26/2013	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	✓ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

1st Production 04/20/2013 28 bbls oil, 131 bbls water, 659 mcf gas flared. 1st sales 04/26/2013 187 bbls.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
June 12, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Pauleen Tobin	303 390-4267	Engineer Tech
SIGNATURE		**DATE**
N/A		6/12/2013

RECEIVED: Jun. 12, 2013

Whiting Oil and Gas
Wellington Flats 15-11-18E
Hook-Wildcat
Carbon Country, Utah
4300750347
1988 FNL 652 FWL SWNW 18 16S 11E

CL File No.: DEN-120145
Date: 4/26/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
1	5481.00	Ambient	0.92	***	***	***	***	***	0.0	86.6	2.769	
1	5481.00	2000	***	***	***	***	***	***				(2)
4	5486.90	Ambient	1.01	***	***	***	***	***	0.0	92.4	2.730	
4	5486.90	2000	***	***	***	***	***	***				(2)
6	5490.40	Ambient	1.31	***	***	***	***	***	0.0	82.5	2.767	
6	5490.40	2000	1.23	.001	.005	131.87	6.68E+15	2.38E+04			2.767	
7	5492.25	Ambient	1.04	***	***	***	***	***	2.5	85.9	2.747	
7	5492.25	2000	***	***	***	***	***	***				(2)
9	5498.60	Ambient	0.81	***	***	***	***	***	0.0	92.8	2.761	
9	5498.60	2000	***	***	***	***	***	***				(2)
11	5502.40	Ambient	1.35	***	***	***	***	***	0.0	51.5	2.763	
11	5502.40	2000	0.94	.093	.126	8.16	2.45E+12	7.36E+02			2.763	(1)
12	5504.50	Ambient	1.01	***	***	***	***	***	0.0	94.9	2.772	
12	5504.50	2000	***	***	***	***	***	***				(2)
13	5507.40	Ambient	1.25	***	***	***	***	***	0.0	74.2	2.786	(6)
15	5513.00	Ambient	1.41	***	***	***	***	***	2.4	66.4	2.763	
15	5513.00	2000	1.20	.0001	.0009	293.93	5.15E+17	1.87E+05			2.763	
18	5518.90	Ambient	2.17	***	***	***	***	***	1.2	73.0	2.719	(6)
19	5520.70	Ambient	2.31	***	***	***	***	***	0.0	85.0	2.792	
19	5520.70	2000	2.26	0.001	0.006	119.27	3.83E+15	1.83E+04			2.792	
20	5523.10	Ambient	1.12	***	***	***	***	***	6.2	82.5	2.746	
20	5523.10	2000	***	***	***	***	***	***				(2)
494	5525.40	Ambient	2.22	***	***	***	***	***	0.0	47.7	2.693	
494	5525.40	2000	1.88	.0002	.002	219.89	1.11E+17	9.01E+04			2.693	

Whiting Oil and Gas
Wellington Flats 15-11-18E
Hook-Wildcat
Carbon Country, Utah

CL File No.: DEN-120145
Date: 4/26/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
22	5526.50	Ambient	2.07	***	***	***	***	***	7.4	34.0	2.710	
22	5526.50	2000	1.91	.0003	.002	202.06	7.03E+16	7.25E+04			2.710	
23	5530.20	Ambient	1.07	***	***	***	***	***	0.0	42.6	2.720	
23	5530.20	2000	***	***	***	***	***	***				(2)
24	5531.50	Ambient	2.05	***	***	***	***	***	3.2	33.3	2.702	
24	5531.50	2000	1.57	.0003	.002	197.60	6.22E+16	6.85E+04			2.702	(1)
25	5532.50	Ambient	3.78	***	***	***	***	***	21.7	29.8	2.703	
25	5532.50	2000	3.06	.002	.008	104.58	1.87E+15	1.30E+04			2.703	
26	5534.10	Ambient	1.96	***	***	***	***	***	0.0	44.6	2.732	
26	5534.10	2000	1.69	.001	.004	149.86	1.36E+16	3.33E+04			2.732	(1)
27	5536.90	Ambient	1.98	***	***	***	***	***	0.8	74.2	2.715	
27	5536.90	2000	0.46	.00005	.00048	407.51	2.65E+18	4.11E+05			2.715	
28	5539.50	Ambient	1.03	***	***	***	***	***	0.0	80.3	2.752	
28	5539.50	2000	***	***	***	***	***	***				(2)
29	5541.50	Ambient	1.28	***	***	***	***	***	0.0	81.9	2.745	
29	5541.50	2000	0.63	.0001	.0007	344.27	1.15E+18	2.75E+05			2.745	
30	5543.70	Ambient	1.58	***	***	***	***	***	0.0	43.2	2.724	(6)
31	5545.50	Ambient	2.20	***	***	***	***	***	3.5	50.0	2.731	
31	5545.50	2000	1.09	.0001	.0008	299.86	5.77E+17	1.99E+05			2.731	
34	5552.00	Ambient	2.41	***	***	***	***	***	3.1	42.5	2.708	
34	5552.00	2000	1.96	.0003	.002	195.68	5.92E+16	6.69E+04			2.708	
36	5555.90	Ambient	1.83	***	***	***	***	***	0.0	31.8	2.705	
36	5555.90	2000	1.53	.0002	.0013	259.65	2.82E+17	1.44E+05			2.705	
38	5561.50	Ambient	2.86	***	***	***	***	***	0.0	55.6	2.747	

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CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability		b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation		Grain Density (g/cm3)	Footnote
				Klinkenberg (md)	Kair (md)				Oil % Pore Volume	Water % Pore Volume		
38	5561.50	2000	0.75	.00003	.0004	466.89	5.19E+18	5.70E+05			2.747	
39	5563.60	Ambient	2.33	***	***	***	***	***	0.0	60.6	2.728	
39	5563.60	2000	0.99	.0001	.0007	353.15	1.32E+18	2.94E+05			2.728	
43	5572.50	Ambient	2.29	***	***	***	***	***	0.0	64.3	2.752	
43	5572.50	2000	1.92	.017	.045	48.45	3.47E+13	1.89E+03			2.752	
44	5573.50	Ambient	1.94	***	***	***	***	***	0.0	54.6	2.754	
44	5573.50	2000	1.15	.192	.324	16.69	7.85E+11	4.92E+02			2.754	(1)
45	5575.50	Ambient	0.75	***	***	***	***	***	0.0	61.7	2.738	
45	5575.50	2000	***	***	***	***	***	***				(2)
48	5582.50	Ambient	2.24	***	***	***	***	***	0.0	54.2	2.735	
48	5582.50	2000	1.58	.427	.511	4.03	2.28E+11	3.17E+02			2.735	(1)
49	5584.40	Ambient	1.69	***	***	***	***	***	0.0	26.6	2.680	(6)
495	5584.50	Ambient	3.94						0.0	52.1	2.764	
495	5584.50	2000	3.70	.002	.008	106.76	2.09E+15	1.37E+04			2.764	
50	5586.40	Ambient	1.00	***	***	***	***	***	3.1	71.1	2.749	(6)
52	5590.50	Ambient	2.16	***	***	***	***	***	0.3	64.5	2.742	
52	5590.50	2000	***	***	***	***	***	***			2.742	(2)
53	5592.50	Ambient	1.99	***	***	***	***	***	0.0	39.4	2.746	
53	5592.50	2000	***	***	***	***	***	***				(2)
54	5594.50	Ambient	1.71	***	***	***	***	***	0.0	42.2	2.734	
54	5594.50	2000	1.56	.0037	.0135	84.25	5.90E+14	7.54E+03			2.734	
55	5596.30	Ambient	1.13	***	***	***	***	***	3.1	65.5	2.756	
55	5596.30	2000	0.62	.0039	.0141	83.09	5.50E+14	7.30E+03			2.756	(1)
56	5598.60	Ambient	1.36	***	***	***	***	***	0.0	98.6	2.741	

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CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
56	5598.60	2000	1.00	.025	.062	40.48	1.77E+13	1.49E+03			2.741	(1)
57	5600.40	Ambient	1.09	***	***	***	***	***	.00	78.59	2.725	
57	5600.40	2000	***	***	***	***	***	***				(2)
58	5601.70	Ambient	1.96	***	***	***	***	***	0.0	45.1	2.713	
58	5601.70	2000	1.42	.0002	.0013	241.0	2.0E+17	1.2E+05			2.713	
59	5603.50	Ambient	2.24	***	***	***	***	***	0.0	34.2	2.693	
59	5603.50	2000	2.09	.002	.010	98.44	1.34E+15	1.11E+04			2.693	
60	5604.50	Ambient	2.99	***	***	***	***	***	0.0	33.9	2.696	
60	5604.50	2000	2.82	.001	.004	151.51	1.43E+16	3.41E+04			2.696	
61	5606.50	Ambient	3.47	***	***	***	***	***	0.4	37.2	2.710	
61	5606.50	2000	2.77	.0002	.002	217.78	1.06E+17	8.82E+04			2.710	
62	5608.70	Ambient	2.52	***	***	***	***	***	4.7	35.6	2.700	
62	5608.70	2000	1.78	.001	.003	158.54	1.85E+16	3.85E+04			2.700	
63	5609.50	Ambient	1.87	***	***	***	***	***	0.0	30.5	2.713	
63	5609.50	2000	1.55	.0004	.002	191.24	5.21E+16	6.29E+04			2.713	
64	5612.30	Ambient	2.61	***	***	***	***	***	0.0	60.4	2.730	(6)
66	5616.40	Ambient	1.82	***	***	***	***	***	0.0	40.6	2.719	(6)
67	5617.10	Ambient	1.47	***	***	***	***	***	0.0	34.1	2.741	
67	5617.10	2000	1.11	.0003	.002	195.11	5.81E+16	6.62E+04			2.741	
68	5617.60	Ambient	1.45	***	***	***	***	***	0.0	39.1	2.762	
68	5617.60	2000	1.19	.0004	.002	187.94	4.72E+16	6.00E+04			2.762	
69	5618.30	Ambient	1.97	***	***	***	***	***	0.0	40.2	2.751	
69	5618.30	2000	1.78	.0003	.002	199.27	6.59E+16	7.08E+04			2.751	
70	5618.90	Ambient	1.96	***	***	***	***	***	0.0	43.3	2.749	

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CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability		b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation		Grain Density (g/cm3)	Footnote
				Klinkenberg (md)	Kair (md)				Oil % Pore Volume	Water % Pore Volume		
70	5618.90	2000	1.28	.0001	.001	266.70	3.15E+17	1.48E+05			2.749	
71	5619.50	Ambient	2.04	***	***	***	***	***	0.0	33.6	2.746	
71	5619.50	2000	1.84	.002	.007	112.10	2.72E+15	1.55E+04			2.746	
72	5620.20	Ambient	3.22	***	***	***	***	***	5.2	33.1	2.723	
72	5620.20	2000	2.93	.001	.004	155.88	1.68E+16	3.67E+04			2.723	
73	5620.90	Ambient	3.68	***	***	***	***	***	19.5	21.7	2.701	
73	5620.90	2000	3.44	.001	.004	149.18	1.31E+16	3.27E+04			2.701	
74	5621.40	Ambient	3.24	***	***	***	***	***	10.1	25.5	2.726	
74	5621.40	2000	2.79	.001	.004	145.68	1.15E+16	3.08E+04			2.726	
75	5622.50	Ambient	4.80	***	***	***	***	***	9.2	25.7	2.707	
75	5622.50	2000	4.56	.002	.009	107.29	2.15E+15	1.39E+04			2.707	
76A	5622.85	Ambient	3.82	***	***	***	***	***	18.5	16.0	2.705	
76A	5622.85	2000	3.62	.002	.008	110.10	2.53E+15	1.52E+04			2.705	
76B	5622.86	Ambient	3.38	***	***	***	***	***	26.4	14.8	2.714	
76B	5622.86	2000	3.00	.001	.004	144.85	1.11E+16	3.03E+04			2.714	
77	5623.20	Ambient	3.45	***	***	***	***	***	18.7	23.3	2.707	
77	5623.20	2000	3.01	.001	.004	144.63	1.10E+16	3.02E+04			2.707	
78	5623.80	Ambient	2.45	***	***	***	***	***	5.9	39.4	2.732	
78	5623.80	2000	1.56	.0001	.0008	294.5	5.2E+17	1.9E+05			2.732	
80	5624.90	Ambient	3.14	***	***	***	***	***	2.0	38.8	2.723	
80	5624.90	2000	2.50	.0002	.0016	213.44	9.56E+16	8.39E+04			2.723	
81	5625.40	Ambient	2.20	***	***	***	***	***	0.0	41.7	2.743	
81	5625.40	2000	1.73	.0001	.0011	263.98	2.99E+17	1.45E+05			2.743	
82	5625.90	Ambient	2.16	***	***	***	***	***	0.0	35.8	2.748	

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Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
82	5625.90	2000	2.25	.0004	.002	183.00	4.20E+16	5.77E+04			2.748	
83	5628.00	Ambient	2.22	***	***	***	***	***	0.7	38.5	2.743	
83	5628.00	2000	1.65	.0001	.001	270.77	3.40E+17	1.53E+05			2.743	
84	5630.00	Ambient	1.90	***	***	***	***	***	0.0	29.2	2.748	
84	5630.00	2000	1.37	.0003	.002	208.00	8.19E+16	7.78E+04			2.748	
85	5631.80	Ambient	2.33	***	***	***	***	***	1.0	28.6	2.743	
85	5631.80	2000	2.16	.001	.003	167.13	2.47E+16	4.41E+04			2.743	
86	5633.50	Ambient	2.26	***	***	***	***	***	2.9	25.6	2.748	
86	5633.50	2000	1.77	.0003	.002	198.96	6.44E+16	6.94E+04			2.748	
87	5635.50	Ambient	1.77	***	***	***	***	***	4.4	28.8	2.755	
87	5635.50	2000	1.32	.001	.003	160.47	1.99E+16	3.99E+04			2.755	
88	5637.10	Ambient	2.92	***	***	***	***	***	3.5	35.2	2.739	
88	5637.10	2000	2.09	.175	.298	17.34	8.93E+11	5.15E+02			2.739	(1)
89	5639.00	Ambient	3.19	***	***	***	***	***	1.7	25.8	2.714	
89	5639.00	2000	2.98	.003	.012	93.07	9.95E+14	9.66E+03			2.714	
90	5641.20	Ambient	2.10	***	***	***	***	***	0.5	37.1	2.741	
90	5641.20	2000	1.80	.0005	.0028	172.08	2.90E+16	4.76E+04			2.741	
91	5643.10	Ambient	1.57	***	***	***	***	***	0.0	42.2	2.738	
91	5643.10	2000	***	***	***	***	***	***				(2)
92	5644.90	Ambient	1.40	***	***	***	***	***	0.0	30.4	2.709	
92	5644.90	2000	1.20	.0002	.002	229.62	1.43E+17	1.02E+05			2.709	
93	5646.90	Ambient	1.43	***	***	***	***	***	0.0	45.8	2.761	(6)
94	5648.70	Ambient	1.43	***	***	***	***	***	0.0	31.0	2.750	(6)
95	5650.50	Ambient	1.30	***	***	***	***	***	0.0	31.4	2.748	

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CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
95	5650.50	2000	0.74	.0002	.0016	222.74	1.19E+17	9.29E+04			2.748	
96	5652.80	Ambient	1.11	***	***	***	***	***	0.0	64.8	2.807	
96	5652.80	2000	0.98	.0002	.001	238.49	1.82E+17	1.17E+05			2.807	
97	5654.30	Ambient	0.86	***	***	***	***	***	0.0	52.0	2.750	
97	5654.30	2000	***	***	***	***	***	***				(2)
99	5659.00	Ambient	1.33	***	***	***	***	***	0.0	50.9	2.739	(6)
101	5663.20	Ambient	2.35	***	***	***	***	***	0.0	53.7	2.738	(6)
102	5664.50	Ambient	1.42	***	***	***	***	***	0.0	85.4	2.723	
102	5664.50	2000	0.67	.029	.036	6.25	1.60E+14	1.50E+04			2.723	(1)
103	5665.10	Ambient	2.26	***	***	***	***	***	0.0	47.8	2.729	
103	5665.10	2000	2.01	.123	.146	4.65	2.29E+13	9.06E+03			2.729	(1)
104	5665.40	Ambient	1.54	***	***	***	***	***	0.5	46.8	2.738	
104	5665.40	2000	1.12	.0003	.0017	208.14	8.27E+16	7.83E+04			2.738	(1)
105	5666.25	Ambient	1.28	***	***	***	***	***	0.0	51.9	2.752	(6)
106	5666.25	Ambient	2.42	***	***	***	***	***	1.3	64.1	2.735	(6)
107	5667.20	Ambient	1.90	***	***	***	***	***	0.0	39.1	2.725	(6)
108	5667.70	Ambient	3.71	***	***	***	***	***	0.0	41.7	2.749	(5)
109	5668.30	Ambient	2.82	***	***	***	***	***	0.0	45.3	2.744	(5)
110	5668.90	Ambient	2.50	***	***	***	***	***	0.0	59.3	2.744	
110	5668.90	2000	2.35	.020	.026	9.27	2.33E+13	1.53E+03			2.744	(1)
111	5669.70	Ambient	2.19	***	***	***	***	***	0.0	60.9	2.758	
111	5669.70	2000	1.71	.006	.021	70.92	2.42E+14	4.95E+03			2.758	(1)
112	5670.00	Ambient	3.00	***	***	***	***	***	1.8	45.8	2.738	(6)
113	5671.20	Ambient	2.19	***	***	***	***	***	0.0	42.9	2.792	

Whiting Oil and Gas
Wellington Flats 15-11-18E
Hook-Wildcat
Carbon Country, Utah

CL File No.: DEN-120145
Date: 4/26/2013
Analyst(s): JC

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Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
113	5671.20	2000	1.55	.095	.131	9.65	3.90E+12	1.21E+03			2.792	(1)
114	5671.60	Ambient	1.70	***	***	***	***	***	0.0	38.0	2.770	
114	5671.60	2000	1.34	.006	.019	72.45	2.18E+15	4.18E+04			2.770	(1)
115	5672.00	Ambient	2.37	***	***	***	***	***	0.0	39.6	2.773	
115	5672.00	2000	1.72	.106	.128	5.40	3.04E+12	1.06E+03			2.773	(1)
116	5672.40	Ambient	2.31	***	***	***	***	***	0.0	49.7	2.765	(6)
117	5673.10	Ambient	1.92	***	***	***	***	***	0.0	56.3	2.741	
117	5673.10	2000	1.35	.0001	.0009	278.175	3.91E+17	1.64E+05			2.741	
118	5674.00	Ambient	1.80	***	***	***	***	***	0.0	63.1	2.900	
118	5674.00	2000	1.60	.0004	.0026	178.480	3.56E+16	5.26E+04			2.900	(1)
119	5675.00	Ambient	2.48	***	***	***	***	***	0.0	47.2	2.713	
119	5675.00	2000	2.09	.009	.027	63.205	1.36E+14	3.76E+03			2.713	
120	5676.00	Ambient	2.74	***	***	***	***	***	0.0	67.1	2.741	(6)
121	5676.70	Ambient	2.07	***	***	***	***	***	0.0	43.5	2.755	(6)
122	5677.35	Ambient	3.83	***	***	***	***	***	30.0	10.9	2.810	
122	5677.35	2000	2.74	.0004	.0004	177.62	3.46E+16	5.18E+04			2.810	
123	5677.85	Ambient	6.36	***	***	***	***	***	17.3	41.0	2.783	
123	5677.85	2000	6.09	.003	.013	88.16	7.44E+14	8.42E+03			2.783	
124	5678.30	Ambient	2.80	***	***	***	***	***	16.9	21.9	2.805	
124	5678.30	2000	2.04	.001	.001	141.56	9.87E+15	2.86E+04			2.805	
125	5678.75	Ambient	5.28	***	***	***	***	***	22.3	16.0	2.768	
125	5678.75	2000	4.68	.003	.003	94.87	1.10E+15	1.01E+04			2.768	
126	5679.15	Ambient	4.62	***	***	***	***	***	22.6	26.8	2.830	
126	5679.15	2000	4.38	.002	.002	109.47	2.38E+15	1.46E+04			2.830	

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Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
128	5679.60	Ambient	6.22	***	***	***	***	***	25.7	17.1	2.845	
128	5679.60	2000	5.56	.004	.004	82.93	5.46E+14	7.27E+03			2.845	
129	5680.00	Ambient	3.91	***	***	***	***	***	20.9	8.1	2.732	
129	5680.00	2000	3.62	.002	.002	105.04	1.91E+15	1.31E+04			2.732	
130	5680.50	Ambient	8.25	***	***	***	***	***	15.5	51.4	2.838	
130	5680.50	2000	7.69	.019	.037	28.53	5.94E+12	3.60E+02			2.838	(1)
131	5681.10	Ambient	6.69	***	***	***	***	***	23.7	31.4	2.812	
131	5681.10	2000	6.17	.003	.012	92.31	9.61E+14	9.50E+03			2.812	
132	5681.50	Ambient	7.12	***	***	***	***	***	22.8	41.3	2.837	
132	5681.50	2000	6.58	.004	.015	78.82	4.20E+14	6.42E+03			2.837	
133	5682.20	Ambient	6.11	***	***	***	***	***	21.9	3.4	2.781	
133	5682.20	2000	5.88	.004	.014	83.00	5.49E+14	7.29E+03			2.781	
134	5682.75	Ambient	10.10	***	***	***	***	***	19.2	22.8	2.802	
134	5682.75	2000	9.65	.074	.127	18.32	3.20E+12	8.05E+02			2.802	
135	5683.20	Ambient	5.10	***	***	***	***	***	2.4	36.9	2.847	
135	5683.20	2000	4.68	.002	.008	108.42	2.28E+15	1.43E+04			2.847	
136	5684.15	Ambient	4.43	***	***	***	***	***	20.4	4.7	2.753	
136	5684.15	2000	3.95	.005	.018	76.10	3.51E+14	5.90E+03			2.753	
138	5686.00	Ambient	1.24	***	***	***	***	***	0.0	58.2	2.728	
138	5686.00	2000	0.85	.0001	.001	261.25	2.84E+17	1.42E+05			2.728	
139	5687.00	Ambient	1.43	***	***	***	***	***	0.0	53.8	2.716	
139	5687.00	2000	0.67	.0002	.001	233.36	1.54E+17	1.05E+05			2.716	
141	5688.90	Ambient	1.88	***	***	***	***	***	0.0	27.2	2.713	
141	5688.90	2000	1.60	.0005	.003	177.67	3.47E+16	5.19E+04			2.716	

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Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
140	5690.60	Ambient	2.50	***	***	***	***	***	14.0	8.3	2.697	
140	5690.60	2000	2.13	.001	.004	150.38	1.38E+16	3.35E+04			2.697	
142	5691.50	Ambient	2.40	***	***	***	***	***	14.7	8.3	2.685	
142	5691.50	2000	1.99	.001	.003	156.78	1.74E+16	3.74E+04			2.685	
144	5692.10	Ambient	2.44	***	***	***	***	***	6.9	8.1	2.686	
144	5692.10	2000	1.96	.001	.004	147.18	1.22E+16	3.16E+04			2.686	
145	5692.50	Ambient	5.38	***	***	***	***	***	13.9	3.9	2.700	
145	5692.50	2000	5.16	.005	.016	79.06	4.26E+14	6.47E+03			2.700	
146	5693.20	Ambient	4.63	***	***	***	***	***	12.5	6.7	2.728	
146	5693.20	2000	4.24	.003	.011	92.19	9.46E+14	9.43E+03			2.728	
147	5693.50	Ambient	5.64	***	***	***	***	***	16.9	5.9	2.705	
147	5693.50	2000	5.48	.006	.020	70.89	2.41E+14	4.94E+03			2.705	
149	5694.90	Ambient	6.23	***	***	***	***	***	16.5	5.0	2.699	
149	5694.90	2000	5.87	.014	.030	33.16	1.49E+13	6.67E+02			2.699	
150	5696.10	Ambient	6.24	***	***	***	***	***	17.2	3.3	2.697	
150	5696.10	2000	5.77	.015	.025	19.39	4.02E+13	1.98E+03			2.697	
151	5696.50	Ambient	5.84	***	***	***	***	***	10.4	14.4	2.702	
151	5696.50	2000	5.42	.006	.020	71.84	2.61E+14	5.13E+03			2.702	
152	5697.20	Ambient	5.57	***	***	***	***	***	1.7	45.2	2.684	
152	5697.20	2000	4.62	.0003	.002	205.18	7.71E+16	7.58E+04			2.684	
153	5697.60	Ambient	5.19	***	***	***	***	***	4.7	49.2	2.703	
153	5697.60	2000	4.63	.001	.004	144.16	1.10E+16	3.01E+04			2.703	
154	5698.10	Ambient	5.44	***	***	***	***	***	1.9	35.2	2.699	
154	5698.10	2000	4.90	.001	.006	120.68	4.10E+15	1.89E+04			2.699	

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Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability		b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation		Grain Density (g/cm3)	Footnote
				Klinkenberg (md)	Kair (md)				Oil % Pore Volume	Water % Pore Volume		
155	5698.60	Ambient	5.40	***	***	***	***	***	0.0	38.2	2.695	
155	5698.60	2000	4.94	.002	.007	113.26	2.90E+15	1.60E+04			2.695	
156	5699.20	Ambient	5.27	***	***	***	***	***	0.7	62.8	2.701	
156	5699.20	2000	4.45	.001	.003	163.38	2.20E+16	4.18E+04			2.701	
157	5699.85	Ambient	6.05	***	***	***	***	***	0.0	51.5	2.690	
157	5699.85	2000	5.92	.004	.008	34.10	5.44E+14	7.45E+03			2.690	
158	5700.10	Ambient	5.19	***	***	***	***	***	13.4	40.2	2.691	
158	5700.10	2000	4.88	.002	.009	101.48	1.60E+15	1.21E+04			2.691	
159	5700.50	Ambient	5.40	***	***	***	***	***	0.0	52.4	2.698	
159	5700.50	2000	4.89	.002	.008	107.68	2.20E+15	1.40E+04			2.698	
160	5701.00	Ambient	3.72	***	***	***	***	***	16.3	24.3	2.714	
160	5701.00	2000	3.25	.001	.006	120.61	4.04E+15	1.87E+04			2.714	
161	5701.50	Ambient	3.67	***	***	***	***	***	4.1	35.5	2.710	
161	5701.50	2000	3.20	.001	.006	124.85	4.89E+15	2.05E+04			2.710	
162	5702.10	Ambient	3.08	***	***	***	***	***	0.0	36.0	2.702	
162	5702.10	2000	2.69	.001	.005	135.01	7.55E+15	2.52E+04			2.702	
163	5702.60	Ambient	2.64	***	***	***	***	***	0.0	34.9	2.693	
163	5702.60	2000	2.03	.001	.003	162.14	2.10E+16	4.09E+04			2.693	
164	5703.00	Ambient	2.57	***	***	***	***	***	2.8	33.6	2.694	
164	5703.00	2000	2.06	.001	.003	153.19	1.53E+16	3.52E+04			2.694	
165	5703.50	Ambient	2.76	***	***	***	***	***	1.9	33.7	2.697	
165	5703.50	2000	2.12	.0005	.003	170.52	2.76E+16	4.65E+04			2.697	
166	5704.00	Ambient	3.14	***	***	***	***	***	0.0	42.2	2.694	
166	5704.00	2000	2.84	.001	.004	141.94	1.01E+16	2.91E+04			2.694	

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Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
167	5704.50	Ambient	2.81	***	***	***	***	***	0.0	41.2	2.697	
167	5704.50	2000	2.35	.001	.004	148.66	1.29E+16	3.25E+04			2.697	
168	5705.10	Ambient	1.91	***	***	***	***	***	0.8	36.6	2.700	
168	5705.10	2000	1.53	.001	.003	162.99	2.16E+16	4.14E+04			2.700	
169	5705.50	Ambient	2.85	***	***	***	***	***	0.0	48.1	2.694	
169	5705.50	2000	2.44	.001	.004	147.55	1.24E+16	3.18E+04			2.694	
170	5706.00	Ambient	2.51	***	***	***	***	***	0.0	43.4	2.707	
170	5706.00	2000	2.10	.001	.003	161.30	2.04E+16	4.04E+04			2.707	
171	5706.50	Ambient	1.98	***	***	***	***	***	0.0	43.5	2.690	
171	5706.50	2000	1.50	.0004	.003	175.11	3.21E+16	5.00E+04			2.690	
172	5707.00	Ambient	1.37	***	***	***	***	***	0.5	25.4	2.688	
172	5707.00	2000	0.99	.0003	.002	209.93	8.77E+16	8.10E+04			2.688	
173	5707.50	Ambient	1.13	***	***	***	***	***	0.0	30.4	2.695	
173	5707.50	2000	0.47	.0002	.001	237.73	1.69E+17	1.10E+05			2.695	
174	5708.00	Ambient	1.23	***	***	***	***	***	0.0	27.7	2.695	(6)
175	5709.20	Ambient	1.14	***	***	***	***	***	4.2	32.4	2.745	(5)
177	5710.45	Ambient	1.76	***	***	***	***	***	0.0	30.6	2.716	(5)
180	5712.50	Ambient	0.98	***	***	***	***	***	0.0	36.8	2.723	(6)
181	5712.90	Ambient	1.06	***	***	***	***	***	0.0	31.3	2.707	(6)
182	5713.70	Ambient	1.18	***	***	***	***	***	0.0	41.9	2.707	(6)
183	5715.20	Ambient	1.16	***	***	***	***	***	1.7	29.2	2.716	(6)
188	5725.50	Ambient	1.43	***	***	***	***	***	0.0	35.8	2.784	(6)
189	5727.50	Ambient	2.20	***	***	***	***	***	9.6	44.3	2.780	
189	5727.50	2000	0.91	.00004	.0004	442.69	3.94E+18	4.97E+05			2.780	

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Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
190	5729.50	Ambient	2.12	***	***	***	***	***	4.4	56.1	2.772	(6)
198	5731.50	Ambient	0.51	***	***	***	***	***	0.0	96.4	2.776	
198	5731.50	2000	***	***	***	***	***	***				(2)
191	5733.00	Ambient	3.16	***	***	***	***	***	0.0	32.2	2.790	
191	5733.00	2000	2.47	.0001	.0008	311.15	7.20E+17	2.24E+05			2.790	
192	5735.10	Ambient	2.47	***	***	***	***	***	0.0	33.4	2.750	
192	5735.10	2000	1.83	.0003	.002	201.02	6.81E+16	7.14E+04			2.750	
193	5736.50	Ambient	2.40	***	***	***	***	***	0.0	29.7	2.811	
193	5736.50	2000	2.34	.006	.019	72.60	2.73E+14	5.23E+03			2.811	(1)
194	5738.20	Ambient	2.73	***	***	***	***	***	0.0	37.3	2.698	
194	5738.20	2000	2.59	.001	.004	151.02	1.43E+16	3.43E+04			2.698	
197	5748.90	Ambient	0.85	***	***	***	***	***	0.0	80.1	2.756	
197	5748.90	2000	***	***	***	***	***	***				(2)
199	5754.50	Ambient	0.80	***	***	***	***	***	0.0	40.6	2.790	
199	5754.50	2000	***	***	***	***	***	***				(2)
200	5757.30	Ambient	0.61	***	***	***	***	***	0.0	75.6	2.758	
200	5757.30	2000	***	***	***	***	***	***				(2)
201	5759.90	Ambient	1.59	***	***	***	***	***	0.0	73.8	2.784	
201	5759.90	2000	1.42	0.95	1.02	1.36	8.57E+12	2.66E+04			2.784	(1)
205	5771.50	Ambient	0.60	***	***	***	***	***	0.0	70.5	2.801	
205	5771.50	2000	***	***	***	***	***	***				(2)
209	5783.80	Ambient	0.65	***	***	***	***	***	0.0	56.9	2.786	
209	5783.80	2000	***	***	***	***	***	***				(2)
214	5798.40	Ambient	0.30	***	***	***	***	***	0.0	43.9	2.774	

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Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
214	5798.40	2000	***	***	***	***	***	***			2.774	(2)
216	5804.70	Ambient	1.35	***	***	***	***	***	7.1	33.6	2.747	
216	5804.70	2000	0.80	.0001	.0008	321.93	8.20E+17	2.34E+05			2.747	
496	5805.30	Ambient	1.46	***	***	***	***	***	2.2	25.4	2.688	
496	5805.30	2000	1.15	.0001	.0010	273.98	3.56E+17	1.57E+05			2.688	
217	5807.10	Ambient	1.06	***	***	***	***	***	3.9	31.3	2.768	
217	5807.10	2000	0.37	.0001	.0008	307.08	6.69E+17	2.16E+05			2.768	
218	5809.10	Ambient	0.79	***	***	***	***	***	0.0	68.8	2.759	
218	5809.10	2000	***	***	***	***	***	***				(2)
219	5812.75	Ambient	1.69	***	***	***	***	***	0.0	74.1	2.731	
219	5812.75	2000	***	***	***	***	***	***				(2)
220	5815.50	Ambient	1.40	***	***	***	***	***	0.0	89.6	2.756	
220	5815.50	2000	***	***	***	***	***	***				(2)
221	5819.55	Ambient	1.26	***	***	***	***	***	0.0	92.9	2.725	
221	5819.55	2000	***	***	***	***	***	***				(2)
222	5822.40	Ambient	1.40	***	***	***	***	***	0.0	71.0	2.729	
222	5822.40	2000	***	***	***	***	***	***				(2)
223	5825.00	Ambient	2.05	***	***	***	***	***	0.0	83.3	2.768	(5)
224	5828.10	Ambient	2.07	***	***	***	***	***	0.0	85.2	2.732	(6)
225	5830.80	Ambient	1.49	***	***	***	***	***	0.0	82.4	2.778	(6)
226	5834.90	Ambient	2.60	***	***	***	***	***	0.0	80.9	2.762	(6)
227	5836.35	Ambient	1.69	***	***	***	***	***	7.1	36.6	2.714	
227	5836.35	2000	1.36	.0001	.00065	336.68	1.14E+18	2.87E+05			2.714	
228	5839.00	Ambient	3.54	***	***	***	***	***	27.9	30.5	2.709	

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Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability		b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation		Grain Density (g/cm3)	Footnote
				Klinkenberg (md)	Kair (md)				Oil % Pore Volume	Water % Pore Volume		
228	5839.00	2000	2.60	.0001	.00069	312.80	7.26E+17	2.22E+05			2.709	
229	5842.50	Ambient	2.44	***	***	***	***	***	0.0	70.9	2.760	(6)
230	5844.90	Ambient	1.45	***	***	***	***	***	11.0	43.6	2.699	
230	5844.90	2000	1.01	.0001	.0006	355.84	1.47E+18	3.20E+05			2.699	
231	5849.75	Ambient	3.85	***	***	***	***	***	1.5	28.9	2.733	(6)
498	5850.55	Ambient	1.69	***	***	***	***	***	9.1	26.1	2.668	
498	5850.55	2000	0.44	.00005	.00050	392.42	2.19E+18	3.73E+05			2.668	
232	5851.30	Ambient	2.30	***	***	***	***	***	4.4	74.3	2.727	
232	5851.30	2000	2.05	.0016	.0070	118.13	3.64E+15	1.79E+04			2.727	
234	5856.90	Ambient	2.97	***	***	***	***	***	1.9	73.8	2.731	
234	5856.90	2000	***	***	***	***	***	***				(2)
235	5859.45	Ambient	2.17	***	***	***	***	***	0.5	58.4	2.734	
235	5859.45	2000	1.85	.0017	.0075	109.26	2.37E+15	1.45E+04			2.734	
236	5861.55	Ambient	1.84	***	***	***	***	***	0.0	56.9	2.720	
236	5861.55	2000	1.48	.0003	.0021	195.60	5.91E+16	6.69E+04			2.720	
500	5862.35	Ambient	2.80	***	***	***	***	***	15.9	21.4	2.659	
500	5862.35	2000	2.60	.001	.005	140.6	9.5E+15	2.8E+04			2.659	
237	5863.20	Ambient	2.16	***	***	***	***	***	1.9	54.3	2.720	(6)
238	5866.10	Ambient	2.22	***	***	***	***	***	3.2	33.2	2.739	
238	5866.10	2000	1.94	.00004	.00042	445.15	4.59E+18	5.68E+05			2.739	
239	5867.55	Ambient	2.91	***	***	***	***	***	0.0	46.3	2.737	
239	5867.55	2000	2.40	.0001	.0009	286.46	4.54E+17	1.76E+05			2.737	
240	5869.55	Ambient	3.60	***	***	***	***	***	30.1	14.6	2.700	
240	5869.55	2000	3.43	.0004	.002	187.87	4.76E+16	6.03E+04			2.700	

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Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
501	5870.50	Ambient	4.44	***	***	***	***	***	44.2	20.6	2.708	
501	5870.50	2000	4.31	.003	.012	91.04	8.85E+14	9.14E+03			2.708	
241	5872.50	Ambient	4.61	***	***	***	***	***	0.0	37.6	2.743	
241	5872.50	2000	3.98	.0003	.0020	203.75	7.42E+16	7.43E+04			2.743	
242	5874.70	Ambient	4.02	***	***	***	***	***	41.0	15.8	2.685	
242	5874.70	2000	3.88	.0003	.002	191.4	5.28E+16	6.33E+04			2.685	
244	5875.50	Ambient	4.03	***	***	***	***	***	4.8	52.3	2.727	
244	5875.50	2000	3.60	.0003	.002	194.97	5.83E+16	6.63E+04			2.727	
243	5876.30	Ambient	4.16	***	***	***	***	***	3.8	46.1	2.726	
243	5876.30	2000	3.68	.0003	.002	200.39	6.80E+16	7.14E+04			2.726	
245	5877.40	Ambient	6.56	***	***	***	***	***	0.0	67.1	2.708	(6)
246	5878.40	Ambient	6.27	***	***	***	***	***	0.0	60.1	2.705	
246	5878.40	2000	5.79	.010	.019	27.15	1.04E+13	3.50E+02			2.705	(1)
247	5879.50	Ambient	4.72	***	***	***	***	***	12.9	31.4	2.735	
247	5879.50	2000	4.56	.004	.008	25.25	4.60E+14	6.67E+03			2.735	
248	5880.50	Ambient	6.20	***	***	***	***	***	4.2	55.2	2.705	
248	5880.50	2000	5.93	.005	.017	76.82	3.63E+14	6.00E+03			2.705	(1)
249	5881.00	Ambient	5.84	***	***	***	***	***	32.5	20.9	2.727	
249	5881.00	2000	5.54	.005	.013	50.81	2.21E+14	3.63E+03			2.727	
250	5881.40	Ambient	4.35	***	***	***	***	***	34.7	17.8	2.707	
250	5881.40	2000	3.89	.005	.017	77.09	3.71E+14	6.06E+03			2.707	
251	5881.90	Ambient	4.08	***	***	***	***	***	27.6	19.8	2.685	
251	5881.90	2000	3.81	.001	.006	123.07	4.50E+15	1.97E+04			2.685	
252	5882.50	Ambient	8.04	***	***	***	***	***	33.5	24.4	2.693	

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Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability		b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation		Grain Density (g/cm3)	Footnote
				Klinkenberg (md)	Kair (md)				Oil % Pore Volume	Water % Pore Volume		
252	5882.50	2000	7.55	.012	.023	30.06	1.08E+14	4.23E+03			2.693	(1)
253	5882.90	Ambient	6.05	***	***	***	***	***	40.0	13.1	2.669	
253	5882.90	2000	5.80	.003	.012	93.51	1.03E+15	9.80E+03			2.669	
254	5883.60	Ambient	7.92	***	***	***	***	***	34.7	13.2	2.685	
254	5883.60	2000	7.21	.004	.013	85.67	6.47E+14	7.87E+03			2.685	
255	5884.00	Ambient	5.98	***	***	***	***	***	5.2	51.2	2.697	
255	5884.00	2000	5.34	.001	.003	155.28	1.66E+16	3.66E+04			2.697	
256	5884.50	Ambient	6.63	***	***	***	***	***	35.4	12.8	2.671	
256	5884.50	2000	6.41	.005	.011	32.09	3.00E+14	5.62E+03			2.671	
257	5885.10	Ambient	7.04	***	***	***	***	***	18.7	31.8	2.704	
257	5885.10	2000	6.60	.004	.013	85.32	6.34E+14	7.80E+03			2.704	
258	5885.60	Ambient	7.41	***	***	***	***	***	28.5	22.3	2.708	
258	5885.60	2000	7.08	.009	.018	30.11	1.97E+13	5.96E+02			2.708	
259	5886.10	Ambient	6.87	***	***	***	***	***	25.7	21.2	2.705	
259	5886.10	2000	6.48	.011	.018	19.36	3.43E+13	1.20E+03			2.705	
260	5886.50	Ambient	6.71	***	***	***	***	***	31.6	12.3	2.704	
260	5886.50	2000	6.23	.003	.011	90.71	8.76E+14	9.09E+03			2.704	
261	5887.00	Ambient	7.81	***	***	***	***	***	34.9	13.0	2.697	
261	5887.00	2000	7.19	.004	.014	82.83	5.42E+14	7.24E+03			2.697	
263	5887.50	Ambient	8.29	***	***	***	***	***	36.9	14.8	2.699	
263	5887.50	2000	7.45	.013	.020	14.22	1.76E+13	7.77E+02			2.699	
264	5888.00	Ambient	5.38	***	***	***	***	***	28.6	7.8	2.714	
264	5888.00	2000	5.01	.002	.009	106.51	2.07E+15	1.37E+04			2.714	
265	5888.50	Ambient	5.65	***	***	***	***	***	27.2	11.0	2.702	

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Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
265	5888.50	2000	5.47	.002	.010	102.44	1.68E+15	1.24E+04			2.702	
266	5888.90	Ambient	7.45	***	***	***	***	***	39.4	9.9	2.685	
266	5888.90	2000	6.98	.003	.012	89.22	8.01E+14	8.72E+03			2.685	
267	5889.60	Ambient	6.47	***	***	***	***	***	21.7	22.6	2.706	
267	5889.60	2000	5.52	1.49	1.57	1.05	2.86E+11	1.39E+03			2.706	(1)
268	5890.00	Ambient	6.86	***	***	***	***	***	34.9	15.2	2.708	
268	5890.00	2000	6.12	.003	.011	96.56	1.22E+15	1.06E+04			2.708	
269	5890.50	Ambient	6.18	***	***	***	***	***	34.6	12.4	2.704	
269	5890.50	2000	5.70	.003	.011	93.20	9.99E+14	9.68E+03			2.704	
270	5890.90	Ambient	6.09	***	***	***	***	***	32.9	13.6	2.680	
270	5890.90	2000	5.69	.003	.011	92.18	9.42E+14	9.41E+03			2.680	
271	5891.40	Ambient	6.65	***	***	***	***	***	33.4	9.6	2.702	
271	5891.40	2000	6.56	.006	.019	73.36	2.91E+14	5.40E+03			2.702	
272	5892.10	Ambient	7.57	***	***	***	***	***	38.2	2.8	2.698	
272	5892.10	2000	6.36	.004	.013	87.00	7.01E+14	8.17E+03			2.698	
273	5892.50	Ambient	6.97	***	***	***	***	***	26.7	6.1	2.688	
273	5892.50	2000	6.05	.004	.014	82.98	5.47E+14	7.27E+03			2.688	
274	5892.85	Ambient	6.45	***	***	***	***	***	35.3	6.7	2.681	
274	5892.85	2000	6.29	.005	.017	78.27	4.00E+14	6.28E+03			2.681	
275	5893.35	Ambient	7.46	***	***	***	***	***	33.3	17.2	2.696	
275	5893.35	2000	6.90	.004	.014	83.94	5.82E+14	7.49E+03			2.696	
276	5894.00	Ambient	7.28	***	***	***	***	***	29.5	14.4	2.708	
276	5894.00	2000	6.54	.011	.019	21.85	8.15E+13	2.95E+03			2.708	
277	5894.50	Ambient	7.54	***	***	***	***	***	29.5	17.1	2.717	

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Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
277	5894.50	2000	7.11	.003	.011	94.69	1.10E+15	1.01E+04			2.717	
278	5894.90	Ambient	5.97	***	***	***	***	***	26.0	14.1	2.705	
278	5894.90	2000	5.53	.001	.006	125.36	5.12E+15	2.11E+04			2.705	
279	5895.90	Ambient	6.12	***	***	***	***	***	29.7	13.7	2.713	
279	5895.90	2000	6.04	.009	.015	19.52	1.18E+14	3.62E+03			2.713	
280	5896.40	Ambient	5.04	***	***	***	***	***	23.9	8.5	2.704	
280	5896.40	2000	4.73	.004	.009	31.22	4.84E+14	7.29E+03			2.705	
281	5896.80	Ambient	4.77	***	***	***	***	***	25.6	8.3	2.775	
281	5896.80	2000	4.48	.004	.010	40.47	2.44E+14	3.70E+03			2.775	
507	5897.10	Ambient	6.73	***	***	***	***	***	30.0	14.4	2.710	(5)
283	5898.40	Ambient	5.15	***	***	***	***	***	31.9	11.8	2.727	
283	5898.40	2000	4.64	.002	.008	107.92	2.20E+15	1.41E+04			2.727	
284	5899.00	Ambient	4.67	***	***	***	***	***	22.0	8.6	2.707	
284	5899.00	2000	4.21	.003	.010	95.81	1.17E+15	1.04E+04			2.707	
286	5899.50	Ambient	3.61	***	***	***	***	***	21.7	8.5	2.698	
286	5899.50	2000	3.24	.003	.010	96.11	1.19E+15	1.05E+04			2.698	
287	5900.20	Ambient	2.85	***	***	***	***	***	1.2	58.6	2.708	
287	5900.20	2000	2.48	.0002	.002	214.37	9.74E+16	8.44E+04			2.708	
288	5900.90	Ambient	5.22	***	***	***	***	***	0.0	49.8	2.712	
288	5900.90	2000	***	***	***	***	***	***				(2)
289	5901.50	Ambient	4.43	***	***	***	***	***	0.0	66.7	2.718	(6)
290	5902.00	Ambient	4.17	***	***	***	***	***	0.0	60.7	2.709	(6)
291	5902.50	Ambient	4.80	***	***	***	***	***	0.0	67.9	2.705	
291	5902.50	2000	4.49	.001	.005	130.37	6.27E+15	2.30E+04			2.705	

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Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
292	5903.10	Ambient	3.69	***	***	***	***	***	0.0	68.2	2.719	(5)
294	5904.20	Ambient	3.12	***	***	***	***	***	0.0	74.3	2.729	
294	5904.20	2000	2.63	.0002	.0012	264.99	3.03E+17	1.45E+05			2.729	
295	5904.70	Ambient	3.55	***	***	***	***	***	0.0	70.1	2.714	
295	5904.70	2000	3.45	.0004	.002	183.74	4.16E+16	5.65E+04			2.714	(1)
296	5905.20	Ambient	3.04	***	***	***	***	***	0.0	98.3	2.716	
296	5905.20	2000	2.44	.0003	.002	203.72	7.32E+16	7.39E+04			2.716	
297	5906.10	Ambient	3.48	***	***	***	***	***	0.0	74.4	2.748	(1)(6)
298	5906.50	Ambient	2.01	***	***	***	***	***	3.1	29.4	2.738	
298	5906.50	2000	0.82	.0001	.0009	290.52	4.82E+17	1.81E+05			2.738	
299	5906.90	Ambient	1.75	***	***	***	***	***	0.0	31.0	2.774	
299	5906.90	2000	1.68	.001	.003	172.56	2.96E+16	4.81E+04			2.774	
301	5908.50	Ambient	3.18	***	***	***	***	***	1.4	36.0	2.709	
301	5908.50	2000	***	***	***	***	***	***				(2)
302	5909.10	Ambient	5.70	***	***	***	***	***	29.2	10.3	2.688	
302	5909.10	2000	5.29	.003	.013	87.79	7.28E+14	8.33E+03			2.688	
303	5909.50	Ambient	7.23	***	***	***	***	***	33.3	5.6	2.671	
303	5909.50	2000	6.60	.009	.027	62.16	1.27E+14	3.65E+03			2.671	
304	5910.10	Ambient	8.68	***	***	***	***	***	34.1	4.6	2.671	
304	5910.10	2000	8.32	.049	.078	15.68	2.95E+12	4.68E+02			2.671	
305	5910.50	Ambient	8.60	***	***	***	***	***	28.9	4.9	2.678	
305	5910.50	2000	8.18	.037	.058	15.35	3.38E+12	4.03E+02			2.678	
306	5910.90	Ambient	7.28	***	***	***	***	***	33.9	2.9	2.671	
306	5910.90	2000	6.92	.017	.031	25.82	1.83E+13	1.00E+03			2.671	

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Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability		b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation		Grain Density (g/cm3)	Footnote
				Klinkenberg (md)	Kair (md)				Oil % Pore Volume	Water % Pore Volume		
307	5911.50	Ambient	10.64	***	***	***	***	***	35.2	3.9	2.665	
307	5911.50	2000	10.17	.311	.488	13.43	3.79E+11	3.80E+02			2.665	(1)
308	5912.00	Ambient	10.16	***	***	***	***	***	37.9	2.1	2.667	
308	5912.00	2000	9.61	.175	.295	16.71	3.06E+11	1.73E+02			2.667	(1)
309	5912.50	Ambient	9.69	***	***	***	***	***	32.1	4.3	2.661	
309	5912.50	2000	9.16	.045	.085	23.64	6.64E+12	9.91E+02			2.661	
311	5912.90	Ambient	9.27	***	***	***	***	***	34.4	6.9	2.653	
311	5912.90	2000	8.90	.046	.069	13.66	7.44E+12	1.11E+03			2.653	
312	5913.40	Ambient	8.78	***	***	***	***	***	35.2	7.3	2.644	
312	5913.40	2000	8.43	.030	.057	24.26	8.98E+11	9.02E+01			2.644	
313	5914.00	Ambient	5.60	***	***	***	***	***	21.9	14.9	2.664	
313	5914.00	2000	5.34	.006	.010	22.53	6.82E+13	1.30E+03			2.664	
314	5915.50	Ambient	3.21	***	***	***	***	***	0.0	61.9	2.751	
314	5915.50	2000	2.65	.191	.322	16.69	7.85E+11	4.92E+02			2.751	(1)
315	5917.00	Ambient	3.74	***	***	***	***	***	3.3	31.1	2.715	
315	5917.00	2000	3.51	.005	.013	55.92	5.67E+13	8.87E+02			2.715	
316	5918.70	Ambient	2.34	***	***	***	***	***	0.0	45.1	2.713	
316	5918.70	2000	1.96	.001	.005	137.23	8.36E+15	2.65E+04			2.713	
502	5919.35	Ambient	1.84	***	***	***	***	***	0.0	35.8	2.698	
502	5919.35	2000	1.17	.001	.006	122.06	4.41E+15	1.97E+04			2.698	
318	5922.40	Ambient	2.53	***	***	***	***	***	0.0	47.3	2.735	
318	5922.40	2000	2.11	.001	.004	145.99	1.18E+16	3.11E+04			2.734	
319	5924.20	Ambient	1.62	***	***	***	***	***	0.0	43.0	2.847	
319	5924.20	2000	1.19	.0002	.0013	265.79	3.04E+17	1.46E+05			2.847	

Whiting Oil and Gas
Wellington Flats 15-11-18E
Hook-Wildcat
Carbon Country, Utah

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Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
320	5926.50	Ambient	2.66	***	***	***	***	***	0.0	43.0	2.810	(5)
321	5928.60	Ambient	2.05	***	***	***	***	***	0.0	64.2	2.729	
321	5928.60	2000	0.90	.00005	.00049	390.28	2.16E+18	3.71E+05			2.729	
322	5930.60	Ambient	2.41	***	***	***	***	***	0.0	58.0	2.745	(5)
323	5932.30	Ambient	1.20	***	***	***	***	***	0.0	90.8	2.751	
323	5932.30	2000	***	***	***	***	***	***				(2)
324	5935.70	Ambient	1.28	***	***	***	***	***	0.0	93.6	2.747	
324	5935.70	2000	***	***	***	***	***	***				(2)
325	5938.60	Ambient	2.79	***	***	***	***	***	0.0	36.0	2.692	
325	5938.60	2000	2.45	.002	.009	103.15	1.73E+15	1.26E+04			2.692	
326	5940.40	Ambient	2.62	***	***	***	***	***	0.0	27.7	2.712	
326	5940.40	2000	2.13	.0003	.0019	210.63	8.97E+16	8.21E+04			2.712	
327	5942.50	Ambient	2.48	***	***	***	***	***	0.0	34.2	2.703	
327	5942.50	2000	2.28	.0003	.0018	212.85	9.50E+16	8.45E+04			2.703	
328	5944.50	Ambient	1.31	***	***	***	***	***	0.0	35.5	2.709	
328	5944.50	2000	0.72	.00005	.00051	394.67	2.44E+18	4.08E+05			2.710	
329	5947.50	Ambient	1.81	***	***	***	***	***	0.0	75.4	2.743	
329	5947.50	2000	1.68	.0001	.0007	329.37	9.60E+17	2.56E+05			2.743	
335	5954.40	Ambient	2.06	***	***	***	***	***	0.0	73.1	2.756	
335	5954.40	2000	1.54	.001	.004	141.78	1.00E+16	2.88E+04			2.756	
332	5954.60	Ambient	1.71	***	***	***	***	***	0.0	77.1	2.693	
332	5954.60	2000	1.11	.0001	.0007	329.71	9.38E+17	2.50E+05			2.693	
334	5956.00	Ambient	4.16	***	***	***	***	***	2.2	39.6	2.752	(6)
336	5957.15	Ambient	1.89	***	***	***	***	***	2.4	50.3	2.759	

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Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
336	5957.15	2000	1.39	.002	.008	109.53	2.42E+15	1.48E+04			2.759	
340	5959.40	Ambient	2.10	***	***	***	***	***	0.0	65.3	2.729	
340	5959.40	2000	1.65	.0001	.0011	261.01	2.80E+17	1.40E+05			2.729	
341	5960.10	Ambient	1.55	***	***	***	***	***	0.0	65.3	2.734	
341	5960.10	2000	0.38	.00004	.00045	417.26	2.95E+18	4.31E+05			2.734	
342	5960.50	Ambient	1.41	***	***	***	***	***	8.3	69.6	2.720	
342	5960.50	2000	***	***	***	***	***	***				(2)
344	5961.90	Ambient	2.44	***	***	***	***	***	0.0	94.3	2.730	
344	5961.90	2000	***	***	***	***	***	***				(2)
345	5962.85	Ambient	1.89	***	***	***	***	***	0.0	91.8	2.723	
345	5962.85	2000	***	***	***	***	***	***				(2)
346	5963.90	Ambient	2.13	***	***	***	***	***	0.0	60.1	2.727	(5)
347	5964.30	Ambient	2.39	***	***	***	***	***	0.0	77.2	2.760	(5)
348	5964.80	Ambient	1.19	***	***	***	***	***	0.0	85.8	2.778	
348	5964.80	2000	0.79	.0001	.0010	277.43	3.88E+17	1.65E+05			2.778	
349	5965.90	Ambient	1.94	***	***	***	***	***	0.0	80.2	2.757	
349	5965.90	2000	1.17	.0005	.0028	172.10	2.96E+16	4.86E+04			2.757	
350	5968.00	Ambient	1.93	***	***	***	***	***	3.9	82.0	2.736	
350	5968.00	2000	1.79	.0001	.0007	335.21	1.06E+18	2.71E+05			2.736	
352	5972.00	Ambient	2.41	***	***	***	***	***	0.0	95.1	2.738	
352	5972.00	2000	***	***	***	***	***	***				(2)
353	5974.60	Ambient	1.72	***	***	***	***	***	0.0	92.9	2.723	
353	5974.60	2000	***	***	***	***	***	***				(2)
504	5976.50	Ambient	1.65	***	***	***	***	***	0.0	94.2	2.731	

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Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability		b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation		Grain Density (g/cm3)	Footnote
				Klinkenberg (md)	Kair (md)				Oil % Pore Volume	Water % Pore Volume		
504	5976.50	2000	1.27	.0003	.0020	199.89	6.64E+16	7.05E+04			2.731	
355	5977.70	Ambient	1.01	***	***	***	***	***	0.0	97.4	2.713	
355	5977.70	2000	***	***	***	***	***	***				(2)
356	5980.90	Ambient	1.20	***	***	***	***	***	0.0	78.8	2.740	
356	5980.90	2000	***	***	***	***	***	***				(2)
357	5983.30	Ambient	2.28	***	***	***	***	***	0.0	97.5	2.744	
357	5983.30	2000	***	***	***	***	***	***				(2)
358	5986.90	Ambient	1.18	***	***	***	***	***	0.0	92.8	2.712	
358	5986.90	2000	***	***	***	***	***	***				(2)
359	5990.20	Ambient	1.28	***	***	***	***	***	0.0	96.8	2.715	
359	5990.20	2000	1.18	.00003	.0004	462.79	5.16E+18	5.79E+05			2.715	
360	5993.50	Ambient	1.43	***	***	***	***	***	0.0	99.8	2.728	
360	5993.50	2000	1.13	.0004	.003	185.48	4.40E+16	5.81E+04			2.729	
361	5996.40	Ambient	1.66	***	***	***	***	***	4.0	52.2	2.729	
361	5996.40	2000	1.43	.0001	.0010	290.06	4.85E+17	1.82E+05			2.729	
362	5999.50	Ambient	1.29	***	***	***	***	***	5.8	28.7	2.734	
362	5999.50	2000	0.69	.0001	.0007	325.98	8.67E+17	2.39E+05			2.734	
505	5999.70	Ambient	4.08	***	***	***	***	***	45.7	20.5	2.746	
505	5999.70	2000	3.39	.001	.005	128.62	5.79E+15	2.22E+04			2.746	(1)
363	6003.90	Ambient	0.72	***	***	***	***	***	0.0	92.8	2.699	
363	6003.90	2000	***	***	***	***	***	***				(2)
365	6010.50	Ambient	1.59	***	***	***	***	***	0.0	80.2	2.739	
365	6010.50	2000	1.37	.001	.007	117.7	3.6E+15	1.8E+04			2.739	(1)
366	6014.45	Ambient	0.68	***	***	***	***	***	0.0	90.7	2.745	

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Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability		b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation		Grain Density (g/cm3)	Footnote
				Klinkenberg (md)	Kair (md)				Oil % Pore Volume	Water % Pore Volume		
366	6014.45	2000	***	***	***	***	***	***				(2)
367	6020.20	Ambient	1.88	***	***	***	***	***	0.0	72.2	2.715	(6)
369	6032.10	Ambient	1.86	***	***	***	***	***	0.0	82.9	2.712	
369	6032.10	2000	***	***	***	***	***	***				(2)
370	6035.40	Ambient	1.56	***	***	***	***	***	0.0	91.7	2.715	
370	6035.40	2000	***	***	***	***	***	***				(2)
371	6037.80	Ambient	1.90	***	***	***	***	***	15.6	35.3	2.716	
371	6037.80	2000	1.23	.0002	.001	244.714	2.07E+17	1.24E+05			2.716	
372	6040.00	Ambient	2.68	***	***	***	***	***	6.4	33.4	2.733	(6)
373	6043.20	Ambient	1.72	***	***	***	***	***	18.4	69.5	2.686	
373	6043.20	2000	***	***	***	***	***	***				(2)
374	6046.80	Ambient	2.63	***	***	***	***	***	13.0	64.2	2.722	
374	6046.80	2000	2.36	.001	.004	151.540	1.46E+16	3.47E+04			2.722	
375	6050.90	Ambient	3.61	***	***	***	***	***	0.0	88.2	2.752	
375	6050.90	2000	2.64	.0005	.003	175.326	3.22E+16	5.01E+04			2.752	
376	6053.70	Ambient	1.96	***	***	***	***	***	0.0	84.5	2.741	
376	6053.70	2000	***	***	***	***	***	***				(2)
378	6059.90	Ambient	3.14	***	***	***	***	***	1.5	84.2	2.732	
378	6059.90	2000	2.92	.0004	.002	185.893	4.50E+16	5.90E+04			2.732	
379	6062.25	Ambient	4.84	***	***	***	***	***	29.8	30.5	2.709	
379	6062.25	2000	3.94	.0003	.002	211.302	9.06E+16	8.18E+04			2.709	
506	6063.60	Ambient	1.85	***	***	***	***	***	25.5	23.3	2.749	
506	6063.60	2000	0.27	.00005	.0005	402.53	2.49E+18	3.98E+05			2.749	
382	6064.50	Ambient	2.47	***	***	***	***	***	37.2	18.3	2.698	(6)

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Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
383	6065.60	Ambient	2.00	***	***	***	***	***	28.0	44.2	2.773	(6)
385	6067.40	Ambient	2.64	***	***	***	***	***	8.5	55.4	2.759	(6)
387	6070.20	Ambient	1.68	***	***	***	***	***	6.8	38.8	2.827	
387	6070.20	2000	***	***	***	***	***	***				(2)
389	6071.30	Ambient	5.58	***	***	***	***	***	30.1	15.3	2.707	
389	6071.30	2000	5.07	0.002	0.010	99.4	1.4E+15	1.1E+04			2.707	
390	6071.90	Ambient	4.91	***	***	***	***	***	16.9	28.6	2.706	(6)
391	6072.20	Ambient	2.28	***	***	***	***	***	25.4	17.5	2.693	
391	6072.20	2000	1.62	0.0001	0.0010	276.9	3.8E+17	1.6E+05			2.693	
392	6072.70	Ambient	2.79	***	***	***	***	***	23.5	15.7	2.708	
392	6072.70	2000	2.67	.001	.007	119.60	3.87E+15	1.84E+04			2.708	
393	6073.30	Ambient	4.50	***	***	***	***	***	35.2	9.6	2.720	
393	6073.30	2000	4.32	.003	.012	91.58	9.07E+14	9.24E+03			2.720	
394	6073.90	Ambient	2.92	***	***	***	***	***	33.6	8.8	2.727	
394	6073.90	2000	2.79	.001	.004	147.57	1.24E+16	3.20E+04			2.727	
397	6075.70	Ambient	5.82	***	***	***	***	***	31.3	33.1	2.694	
397	6075.70	2000	***	***	***	***	***	***			2.694	(2)
398	6076.70	Ambient	4.91	***	***	***	***	***	34.3	26.3	2.703	(6)
399	6077.80	Ambient	4.83	***	***	***	***	***	36.6	27.1	2.688	(6)
400	6078.30	Ambient	5.26	***	***	***	***	***	33.9	21.6	2.688	(6)
401	6078.90	Ambient	4.35	***	***	***	***	***	28.2	30.5	2.703	(6)
402	6079.40	Ambient	3.98	***	***	***	***	***	43.0	27.0	2.732	(6)
403	6080.20	Ambient	2.68	***	***	***	***	***	4.0	69.7	2.752	
407	6083.50	Ambient	2.99	***	***	***	***	***	39.1	14.6	2.748	

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Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
407	6083.50	2000	2.64	.011	.023	33.01	7.94E+13	3.02E+03			2.748	(1)
408	6084.10	Ambient	3.20	***	***	***	***	***	37.6	13.4	2.721	
408	6084.10	2000	2.14	.0001	.0010	265.71	3.06E+17	1.46E+05			2.721	
409	6084.50	Ambient	2.90	***	***	***	***	***	39.2	15.0	2.728	
409	6084.50	2000	1.17	.0001	.0008	319.72	7.95E+17	2.30E+05			2.728	
410	6084.90	Ambient	3.16	***	***	***	***	***	35.5	13.9	2.715	
410	6084.90	2000	2.96	.001	.006	120.32	4.00E+15	1.86E+04			2.715	
411	6085.50	Ambient	3.18	***	***	***	***	***	34.5	13.7	2.700	
411	6085.50	2000	2.78	4.7	5.6	3.15	5.21E+10	7.99E+02			2.700	(1)
412	6085.90	Ambient	2.85	***	***	***	***	***	36.8	15.6	2.775	
412	6085.90	2000	2.54	.114	.125	2.39	2.32E+12	8.60E+02			2.775	(1)
413	6087.20	Ambient	5.37	***	***	***	***	***	34.5	32.5	2.695	
413	6087.20	2000	4.03	.0001	.0010	277.56	3.85E+17	1.63E+05			2.695	
414	6087.70	Ambient	5.96	***	***	***	***	***	29.2	18.4	2.705	(6)
415	6088.20	Ambient	5.65	***	***	***	***	***	29.2	18.4	2.707	
415	6088.20	2000	5.53	***	***	***	***	***			2.707	(2)
416	6088.70	Ambient	4.66	***	***	***	***	***	37.4	18.7	2.705	
416	6088.70	2000	3.79	.0004	.002	187.62	4.72E+16	6.00E+04			2.705	
417	6089.50	Ambient	3.13	***	***	***	***	***	30.1	28.2	2.740	
417	6089.50	2000	2.80	.0003	.002	201.34	6.95E+16	7.21E+04			2.740	
418	6090.40	Ambient	2.71	***	***	***	***	***	3.5	78.4	2.746	
418	6090.40	2000	2.57	.0001	.0009	292.41	5.06E+17	1.86E+05			2.746	
419	6091.80	Ambient	1.83	***	***	***	***	***	17.8	31.5	2.764	(6)
422	6095.50	Ambient	3.00	***	***	***	***	***	0.0	88.3	2.762	(6)

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Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability		b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation		Grain Density (g/cm3)	Footnote
				Klinkenberg (md)	Kair (md)				Oil % Pore Volume	Water % Pore Volume		
423	6097.10	Ambient	2.82	***	***	***	***	***	1.8	85.5	2.778	(6)
424	6098.00	Ambient	1.79	***	***	***	***	***	36.6	20.6	2.711	
424	6098.00	2000	0.77	.0001	.0006	360.47	1.44E+18	3.07E+05			2.711	
425	6099.20	Ambient	2.91	***	***	***	***	***	26.1	11.4	2.707	(6)
426	6099.90	Ambient	1.66	***	***	***	***	***	6.5	33.9	2.683	
426	6099.90	2000	***	***	***	***	***	***				(2)
427	6100.50	Ambient	2.12	***	***	***	***	***	31.1	5.0	2.711	
427	6100.50	2000	1.26	.0002	.002	213.32	9.50E+16	8.39E+04			2.711	
428	6100.90	Ambient	0.89	***	***	***	***	***	0.0	87.7	2.785	
428	6100.90	2000	***	***	***	***	***	***				(2)
429	6101.50	Ambient	0.75	***	***	***	***	***	0.0	96.2	2.792	
429	6101.50	2000	***	***	***	***	***	***				(2)
430	6101.80	Ambient	0.51	***	***	***	***	***	0.0	97.0	2.826	
430	6101.80	2000	***	***	***	***	***	***				(2)
431	6102.50	Ambient	1.13	***	***	***	***	***	2.0	86.3	2.779	
431	6102.50	2000	***	***	***	***	***	***				(2)
432	6103.50	Ambient	0.61	***	***	***	***	***	0.0	93.0	2.802	
432	6103.50	2000	***	***	***	***	***	***				(2)
433	6104.50	Ambient	1.76	***	***	***	***	***	0.0	95.2	2.809	(6)
434	6105.50	Ambient	0.52	***	***	***	***	***	0.0	92.4	2.862	
434	6105.50	2000	***	***	***	***	***	***				(2)
435	6106.50	Ambient	4.64	***	***	***	***	***	26.8	10.2	2.810	(6)
436	6106.80	Ambient	4.35	***	***	***	***	***	32.3	6.1	2.785	
436	6106.80	2000	4.11	.001	.004	149.73	1.34E+16	3.30E+04			2.785	

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Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
437	6107.50	Ambient	4.87	***	***	***	***	***	29.8	4.8	2.788	
437	6107.50	2000	***	***	***	***	***	***				(2)
440	6108.50	Ambient	3.84	***	***	***	***	***	36.5	6.7	2.788	
440	6108.50	2000	3.29	.0003	.002	200.59	6.89E+16	7.26E+04			2.788	
441	6109.00	Ambient	4.17	***	***	***	***	***	32.6	6.2	2.716	
441	6109.00	2000	4.04	.010	.032	62.45	1.28E+14	4.26E+03			2.716	
442	6109.60	Ambient	4.57	***	***	***	***	***	35.3	21.5	2.720	(6)
443	6110.00	Ambient	4.56	***	***	***	***	***	20.7	4.8	2.715	(6)
444	6110.40	Ambient	5.26	***	***	***	***	***	16.4	4.3	2.731	
444	6110.40	2000	5.02	.002	.009	103.23	1.73E+15	1.26E+04			2.731	
445	6110.80	Ambient	4.19	***	***	***	***	***	15.2	11.3	2.723	(6)
446	6111.50	Ambient	5.60	***	***	***	***	***	14.2	16.0	2.724	
446	6111.50	2000	5.28	.001	.004	152.43	1.50E+16	3.49E+04			2.724	
447	6112.00	Ambient	3.61	***	***	***	***	***	33.6	18.4	2.708	
447	6112.00	2000	2.92	.0003	.002	209.03	8.53E+16	7.94E+04			2.708	
448	6112.60	Ambient	4.54	***	***	***	***	***	25.6	9.9	2.713	
448	6112.60	2000	4.06	.001	.003	165.08	2.32E+16	4.28E+04			2.713	
449	6113.10	Ambient	4.42	***	***	***	***	***	25.5	15.1	2.720	
449	6113.10	2000	4.04	.001	.004	153.53	1.55E+16	3.53E+04			2.720	
450	6113.60	Ambient	4.50	***	***	***	***	***	25.5	15.0	2.729	
450	6113.60	2000	3.88	.0005	.003	175.31	3.23E+16	5.00E+04			2.729	
451	6114.50	Ambient	4.25	***	***	***	***	***	15.0	6.1	2.794	
451	6114.50	2000	3.68	.0003	.002	204.04	7.46E+16	7.45E+04			2.794	
452	6115.30	Ambient	6.47	***	***	***	***	***	20.9	13.9	2.765	

Whiting Oil and Gas
Wellington Flats 15-11-18E
Hook-Wildcat
Carbon Country, Utah

CL File No.: DEN-120145
Date: 4/26/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability		b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation		Grain Density (g/cm3)	Footnote
				Klinkenberg (md)	Kair (md)				Oil % Pore Volume	Water % Pore Volume		
452	6115.30	2000	5.93	.001	.004	139.77	9.20E+15	2.76E+04			2.765	
453	6115.50	Ambient	4.92	***	***	***	***	***	27.7	4.5	2.728	
453	6115.50	2000	4.40	.001	.003	151.47	1.44E+16	3.41E+04			2.728	
454	6116.20	Ambient	3.09	***	***	***	***	***	32.5	7.2	2.741	
454	6116.20	2000	2.57	.0005	.003	167.72	2.53E+16	4.45E+04			2.741	
455	6116.50	Ambient	3.03	***	***	***	***	***	38.5	15.0	2.729	
455	6116.50	2000	2.58	.0005	.003	174.75	3.17E+16	4.97E+04			2.729	
456	6117.10	Ambient	3.17	***	***	***	***	***	32.2	14.1	2.729	
456	6117.10	2000	2.68	.0005	.003	174.02	3.10E+16	4.90E+04			2.729	
457	6117.50	Ambient	3.79	***	***	***	***	***	33.4	6.4	2.712	
457	6117.50	2000	2.94	.0002	.0013	234.04	1.55E+17	1.05E+05			2.712	
458	6118.60	Ambient	2.86	***	***	***	***	***	35.8	43.5	2.758	
458	6118.60	2000	2.78	.002	.010	100.17	1.46E+15	1.16E+04			2.758	
459	6119.20	Ambient	4.27	***	***	***	***	***	31.9	31.6	2.714	
459	6119.20	2000	3.54	4.592	5.040	1.67	2.56E+10	3.80E+02			2.714	(1)
461	6120.90	Ambient	2.52	***	***	***	***	***	4.7	87.2	2.741	
461	6120.90	2000	1.61	.0001	.0006	361.77	1.46E+18	3.05E+05			2.741	
464	6124.10	Ambient	2.57	***	***	***	***	***	6.4	80.0	2.754	
464	6124.10	2000	1.62	.0001	.0009	285.85	4.50E+17	1.76E+05			2.754	
465	6125.50	Ambient	2.85	***	***	***	***	***	0.0	84.0	2.756	
465	6125.50	2000	2.66	.005	.017	76.30	3.51E+14	5.90E+03			2.756	(1)
466	6126.70	Ambient	2.47	***	***	***	***	***	8.2	68.1	2.728	
466	6126.70	2000	1.83	.0001	.0006	344.56	1.18E+18	2.80E+05			2.728	
468	6128.90	Ambient	3.17	***	***	***	***	***	10.1	72.6	2.731	

Whiting Oil and Gas
Wellington Flats 15-11-18E
Hook-Wildcat
Carbon Country, Utah

CL File No.: DEN-120145
Date: 4/26/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
468	6128.90	2000	2.57	.002	.008	103.83	1.80E+15	1.28E+04			2.731	
469	6129.50	Ambient	2.19	***	***	***	***	***	0.0	82.2	2.739	
469	6129.50	2000	1.34	.00004	.00045	405.02	2.65E+18	4.15E+05			2.739	
470	6131.40	Ambient	1.77	***	***	***	***	***	0.0	62.3	2.760	
470	6131.40	2000	0.32	.0001	.0006	370.21	1.65E+18	3.26E+05			2.760	
471	6132.30	Ambient	3.38	***	***	***	***	***	13.5	50.4	2.740	
471	6132.30	2000	3.11	.061	.081	8.19	2.05E+13	4.11E+03			2.740	(1)
472	6132.90	Ambient	2.99	***	***	***	***	***	29.4	30.2	2.760	
472	6132.90	2000	1.78	.0004	.0025	183.17	4.11E+16	5.63E+04			2.760	
474	6134.20	Ambient	4.45	***	***	***	***	***	31.6	30.8	2.720	
474	6134.20	2000	4.17	.012	.034	55.74	7.37E+13	2.82E+03			2.720	(1)
475	6134.50	Ambient	5.16	***	***	***	***	***	29.3	34.8	2.706	
475	6134.50	2000	4.64	.025	.035	11.50	8.22E+12	6.84E+02			2.706	(1)
476	6134.90	Ambient	2.72	***	***	***	***	***	14.1	56.8	2.754	
476	6134.90	2000	2.24	.0002	.0013	243.79	1.95E+17	1.18E+05			2.754	
477	6135.90	Ambient	2.14	***	***	***	***	***	6.5	63.6	2.743	
477	6135.90	2000	***	***	***	***	***	***				(2)
478	6137.00	Ambient	1.75	***	***	***	***	***	0.0	82.0	2.759	
478	6137.00	2000	0.84	.0001	.0007	325.15	8.58E+17	2.39E+05			2.759	
479	6138.10	Ambient	2.28	***	***	***	***	***	8.1	61.9	2.748	
479	6138.10	2000	***	***	***	***	***	***				(2)
480	6139.30	Ambient	0.31	***	***	***	***	***	0.0	86.7	2.949	
480	6139.30	2000	***	***	***	***	***	***				(2)
484	6142.70	Ambient	1.14	***	***	***	***	***	0.0	34.8	2.806	

Whiting Oil and Gas
Wellington Flats 15-11-18E
Hook-Wildcat
Carbon Country, Utah

CL File No.: DEN-120145
Date: 4/26/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability Klinkenberg (md)	Permeability Kair (md)	b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation Oil % Pore Volume	Saturation Water % Pore Volume	Grain Density (g/cm3)	Footnote
484	6142.70	2000	0.98	.0001	.0007	331.83	1.02E+18	2.66E+05			2.806	
485	6143.80	Ambient	0.47	***	***	***	***	***	0.0	48.3	2.768	
485	6143.80	2000	***	***	***	***	***	***				(2)
486	6144.90	Ambient	0.59	***	***	***	***	***	0.9	74.9	2.739	
486	6144.90	2000	***	***	***	***	***	***				(2)
487	6146.15	Ambient	0.42	***	***	***	***	***	0.0	78.0	2.781	
487	6146.15	2000	***	***	***	***	***	***				(2)
488	6148.20	Ambient	0.59	***	***	***	***	***	0.0	81.2	2.836	
488	6148.20	2000	***	***	***	***	***	***				(2)
489	6149.80	Ambient	0.32	***	***	***	***	***	0.0	68.9	2.766	
489	6149.80	2000	***	***	***	***	***	***				(2)
490	6151.20	Ambient	0.40	***	***	***	***	***	0.0	91.5	2.755	
490	6151.20	2000	***	***	***	***	***	***				(2)
491	6152.80	Ambient	0.52	***	***	***	***	***	0.0	91.6	2.798	
491	6152.80	2000	***	***	***	***	***	***				(2)
492	6153.90	Ambient	0.40	***	***	***	***	***	3.1	86.2	2.735	
492	6153.90	2000	***	***	***	***	***	***				(2)

Footnotes :

(1) : Denotes fractured or chipped sample. Permeability and/or porosity may be optimistic.

(2) : Sample permeability below the measurement range of CMS-300 equipment at indicated net confining stress (NCS). Data unavailable.

(3) : Denotes very short sample, porosity may be optimistic due to lack of conformation of boot material to plug surface.

(4) : Sample contains bitumen or other solid hydrocarbon residue.

(5) : Denotes sample unsuitable for measurement at stress. Porosity determined using Archimedes bulk volume at ambient conditions.

Whiting Oil and Gas
Wellington Flats 15-11-18E
Hook-Wildcat
Carbon Country, Utah

CL File No.: DEN-120145
Date: 4/26/2013
Analyst(s): JC

CMS-300 CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Net Confining Stress (psig)	Porosity (%)	Permeability		b(air) psi	Beta ft(-1)	Alpha (microns)	Saturation		Grain Density (g/cm3)	Footnote
				Klinkenberg (md)	Kair (md)				Oil % Pore Volume	Water % Pore Volume		

(6) : clients request for saturation data only.

Permeability greater than 0.1 mD measured using helium gas. Permeability less than 0.1 mD measured using nitrogen gas. All b values converted to b (air)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-49795

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Wellington Flats 15-11-18E

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER:
43007503470000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER:
303 390-4095 Ext

9. FIELD and POOL or WILDCAT:
UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
1988 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWNW Section: 18 Township: 15.0S Range: 11.0E Meridian: S

COUNTY:
CARBON

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
✓ SUBSEQUENT REPORT Date of Work Completion: 4/30/2013	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: Status update April 2013

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

4/01/2013 - 4/30/2013 Start in hole w/4 1/2" frac string, press test lines ot 10K, press 7" csg to 3000#, start pump, press up, pins sheared @ 9485#. Press fell off, 5 mins 1807#, 10 mins 1564#, 15 mins 1387#. Pump 10 bbls into formation 3.9 bpm, 5000#. POOH. Prep for perf and CO2 frac. Pump 9 stage frac using 1,381,060# 20/40/Ottawa sand, 1800 tons CO2, 7743 bbls fluid. RU coil, drill out plugs 1-8, clean out to 9320, press @ 950#. Very little sand in returns. POOH w/coil. Turn over to flowback crew on 18" ck. NU BOPE, run 2 3/8" tbg, hang off. ND BOPE, NU 3K tree. RU to swab, FL @ 3100', pull fluid, lot of paraiffin.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
June 18, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Pauleen Tobin	303 390-4267	Engineer Tech
SIGNATURE		**DATE**
N/A		6/18/2013

RECEIVED: Jun. 18, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-49795

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Wellington Flats 15-11-18E

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER:
43007503470000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER:
303 390-4095 Ext

9. FIELD and POOL or WILDCAT:
UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
1988 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWNW Section: 18 Township: 15.0S Range: 11.0E Meridian: S

COUNTY:
CARBON

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
✓ SUBSEQUENT REPORT Date of Work Completion: 5/31/2013	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: Status update May 2013

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

5/01/2013 - 5/31/2013 Hot oil well, continue to swab, continued paraffin challenges. Well turned to separator. SI CP=455-890#, TP=200-890#. Waiting on prod battery. CP=1340#, TP=1150#. Battery complete, well back on production. Continue to monitor flow and and paraffin. SWI due to paraffin.No press on tbg.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
November 05, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Pauleen Tobin	303 390-4267	Engineer Tech
SIGNATURE		**DATE**
N/A		6/18/2013

RECEIVED: Jun. 18, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-49795

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL Oil Well

8. WELL NAME and NUMBER: Wellington Flats 15-11-18E

2. NAME OF OPERATOR: WHITING OIL & GAS CORPORATION

9. API NUMBER: 43007503470000

3. ADDRESS OF OPERATOR: 1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER: 303 390-4095 Ext

9. FIELD and POOL or WILDCAT: UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1988 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 18 Township: 15.0S Range: 11.0E Meridian: S

COUNTY: CARBON

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☑ SUBSEQUENT REPORT Date of Work Completion: 6/5/2013	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☑ OTHER	OTHER: Status Update June 2013

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

6/01/2013 - 6/05/2013 WO on swab rig. TP=0#, CP=350#. Swab well, paraffin through out tbg. Run paraffin knife, pump 40 bbls warm oil. Con't swabbing, made 19 runs. Well flowing on a 26" ck. TP=300#, CP=600#. Final flowback rpt. TP=270#, CP=550#. Well producing through battery.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
June 18, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Pauleen Tobin	303 390-4267	Engineer Tech
SIGNATURE N/A		**DATE** 6/18/2013

RECEIVED: Jun. 18, 2013

API Well Number: 43007503470000

BHL SE/NE Sec 10

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☐ (highlight changes) FORM 8

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER: ML-49795

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WELL: OIL WELL ☑ GAS WELL ☐ DRY ☐ OTHER

7. UNIT or CA AGREEMENT NAME:

b. TYPE OF WORK: NEW WELL ☐ HORIZ. LATS. ☑ DEEP-EN ☐ RE-ENTRY ☑ DIFF. RESVR. ☐ OTHER Sidetrack

8. WELL NAME and NUMBER: Wellington Flats 15-11-18E

2. NAME OF OPERATOR: Whiting Oil and Gas Corporation

9. API NUMBER: 4300750347

3. ADDRESS OF OPERATOR: 1700 Broadway Ste 2300 CITY Denver STATE CO ZIP 80290

PHONE NUMBER: (303) 837-1661

10 FIELD AND POOL, OR WILDCAT: Hook Field

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: 1988 FNL, 652 FWL
AT TOP PRODUCING INTERVAL REPORTED BELOW: 1998 FNL, 1420 FWL, SE NW Sec 18
AT TOTAL DEPTH: 2033 FNL, 701 FEL, SW NE Sec 18

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWNW 18 15S 11E

12. COUNTY: Carbon

13. STATE: UTAH

14. DATE SPUDDED: 2/22/2013

15. DATE T.D. REACHED: 3/13/2013

16. DATE COMPLETED: 4/18/2013 ABANDONED ☐ READY TO PRODUCE ☑

17. ELEVATIONS (DF, RKB, RT, GL): 5490 KB, 5473 GR

18. TOTAL DEPTH: MD 9,500 TVD 5,735

19. PLUG BACK T.D.: MD 9,500 TVD 5,735

20. IF MULTIPLE COMPLETIONS, HOW MANY? * No

21. DEPTH BRIDGE PLUG SET: MD TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)
CAST, DSN/SD/AC/TR, BC/SA, CS/NGR, CBL

23.
WAS WELL CORED? NO ☐ YES ☑ (Submit analysis)
WAS DST RUN? NO ☑ YES ☐ (Submit report)
DIRECTIONAL SURVEY? NO ☐ YES ☑ (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
24	20		0	80				0	
17 1/2	13 3/8 J55	54.5	0	1,130		G 1,090	376	0	
12 1/4	9 5/8 L80	47	0	4,839	2,129	Econo 1,315	406	0	
8 1/2	7 HCL80	29	0	6,404		Econo 685	206	270	
6 1/8	4 1/2 HCP110	13.5	4,556	9,500		Elastiseal 340	89	4568	

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8	6,188							

26. PRODUCING INTERVALS / 27. PERFORATION RECORD

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A) Moenkopi	5,833	5,917			5,886 5,892		37	Open ☑ Squeezed ☐
(B)	5,917	6,143			5,894 5,898		25	Open ☑ Squeezed ☐
(C)	6,143	6,347			5,914 5,918		25	Open ☑ Squeezed ☐
(D)					6,194 6,208		85	Open ☑ Squeezed ☐

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
5886-5918	115 bbls 7% KCl
5894-5898	2000gals MSA 15% SBM(14300) acid
6194-6208	2000 gals 15% HCl acid

29. ENCLOSED ATTACHMENTS:
☑ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☑ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☑ CORE ANALYSIS ☐ OTHER: Cmt Rpts

30. WELL STATUS: WOPL

(5/2000) (CONTINUED ON BACK)

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API Well Number: 43007503470000

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
4/20/2013	5/17/2013	24		52	617	24	Flowback

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:
24	275	525	40.20	1,013	1,186		52	617	24	SI-WOPL

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

Vented

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.
White Rim SS	6,347		

34. FORMATION (Log) MARKERS:

Name	Top (Measured Depth)
Ferron	260
Dakota	916
Curtis	2,460
Carmel	3,176
Kayenta	4,098
Chinle	4,629
Moenkopi	4,996
Sinbad	5,682
Kaibab	6,143
White Rim SS	6,347

35. ADDITIONAL REMARKS (Include plugging procedure)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) Pauleen Tobin TITLE Engineer Tech

SIGNATURE DATE 12/18/13

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

(5/2000)

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Whiting Oil and Gas Corporation
Wellington Flats 15-11-18E
43-007-50347
Completion Rpt, Form 8
Continuation page

27. Perforation Record

6474-6748'– 52 holes – Open
6884-7168'– 52 holes – Open
7304-7348'– 26 holes – Open
7484-7708'– 52 holes – Open
7894-8078'– 52 holes – Open
8254-8448'– 52 holes – Open
8584-8768'– 52 holes – Open
8900-9086'– 52 holes – Open
9184-9274'– 52 holes – Open

28. Fracture Treatment

6474-6748'	238960# 20/40 Ottawa sand, 260 tons CO2
6884-7168'	217200# 20/40 Ottawa sand, 242 tons CO2
7304-7348'	88000# 20/40 Ottawa sand, 124 tons CO2
7484-7708'	194100# 20/40 Ottawa sand, 231 tons CO2
7894-8078'	187000# 20/40 Ottawa sand, 219 tons CO2
8254-8448'	163800# 20/40 Ottawa sand, 203 tons CO2
8584-8768'	141700# 20/40 Ottawa sand, 190 tons CO2
8900-9086'	150300# 20/40 Ottawa sand, 171 tons CO2
9184-9274	54600# 20/40 Ottawa sand, 161 tons CO2

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HALLIBURTON

WHITING OIL & GAS CORP EBUSINESS
DO NOT MAIL - 1700 BROADWAY STE2300
DENVER, Colorado

Wellington Flats 15-11-18E

FRONTIER/2

Post Job Summary
Cement Production Liner

Prepared for: Benjamin Betts
Date Prepared: 3/28/13
Version: 1

Service Supervisor: HAMMOND, QUINN

Submitted by: Chris Cicirello

HALLIBURTON

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 306489	**Ship To #:** 2963156	**Quote #:**	**Sales Order #:** 900287701
Customer: WHITING OIL & GAS CORP EBUSINESS		**Customer Rep:** Betts, Benjamin	
Well Name: Wellington Flats	**Well #:** 15-11-18E		**API/UWI #:** 43.007.50347
Field:	**City (SAP):** PRICE	**County/Parish:** Carbon	**State:** Utah
Legal Description: Section 18 Township 15S Range 11E			
Contractor: FRONTIER	**Rig/Platform Name/Num:** 2		
Job Purpose: Cement Production Liner			
Well Type: Development Well	**Job Type:** Cement Production Liner		
Sales Person: FLING, MATTHEW	**Srvc Supervisor:** HAMMOND, QUINN	**MBU ID Emp #:** 472403	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
CARPENTER, LANCE S	0.0	461737	COVINGTON, ADAM Jeffrey	0.0	525243	EAVES, WESTON	0.0	539193
HAMMOND, QUINN R	0.0	472403	HAVILI, ETUATE S	0.0	522123	MITCHELL, WARREN D	0.0	469552
WHITE, KAMEREON V	0.0	475856						

Equipment

HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*

Job Hours

Date	*On Location Hours*	Operating Hours	Date	*On Location Hours*	Operating Hours	Date	*On Location Hours*	Operating Hours
TOTAL			*Total is the sum of each column separately*					

Job

Formation Name					
Formation Depth (MD)	**Top**		**Bottom**		
Form Type		**BHST**		125 degF	
Job depth MD	9536. ft	**Job Depth TVD**		7225. ft	
Water Depth		**Wk Ht Above Floor**		20. ft	
Perforation Depth (MD)	*From*		**To**		

Job Times

	Date	Time	Time Zone
Called Out	15 - Mar - 2013	08:00	MST
On Location	15 - Mar - 2013	14:00	MST
Job Started	15 - Mar - 2013	16:25	MST
Job Completed	16 - Mar - 2013	02:00	MST
Departed Loc	16 - Mar - 2013	04:30	MST

Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
6 1/8" Open Hole				6.125				5188.	9536.		
4 1/2" Production Liner	Unknown		4.5	4.	11.6		L-80	4900.	9536.		
7" Intermediate Casing	Unknown		7.	6.184	29.	LTC	L-80	.	5188.		
4" Drill Pipe	Unknown		4.	3.34	14.		S-135	.	4900.		

Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

Summit Version:

Thursday, March 28, 2013 13:54:00

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Cementing Job Summary

Miscellaneous Materials															
Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty		Conc	%		
Treatment Fld		Conc		*Inhibitor*		Conc		Sand Type		*Size*		*Qty*			

Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Tuned Spacer III	TUNED SPACER III - SBM (483826)	40.00	bbl	11.5	7.02	45242.0	.0	
	150 lbm/bbl	BARITE, BULK (100003681)							
	36.2 gal/bbl	FRESH WATER							
2	ELASTISEAL	ELASTISEAL (TM) SYSTEM (450262)	290.0	sacks	14.3	1.47	6.31		6.31
	20 %	SAND-SSA-1 - SILICA FLOUR - 200 MESH, 50 LB (100003796)							
	6.31 Gal	FRESH WATER							
3	ELASTISEAL	ELASTISEAL (TM) SYSTEM (450262)	50.0	sacks	14.3	1.47	6.31		6.31
	6.31 Gal	FRESH WATER							
4	Displacement Fluid		112.00	bbl	10.5			.0	

Calculated Values		Pressures		Volumes					
Displacement		Shut In: Instant		Lost Returns		*Cement Slurry*		Pad	
Top Of Cement		5 Min		Cement Returns		Actual Displacement		Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	

Rates							
Circulating		*Mixing*		*Displacement*		Avg. Job	

Cement Left In Pipe	Amount	*40 ft*	*Reason*	*Shoe Joint*

Frac Ring # 1 @		*ID*		*Frac ring # 2 @*		*ID*		*Frac Ring # 3 @*		*ID*		*Frac Ring # 4 @*		*ID*	

The Information Stated Herein Is Correct	***Customer Representative Signature***

Summit Version:

Thursday, March 28, 2013 13:54:00

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HALLIBURTON

Service Quality

HALLIBURTON

Water Analysis For Cement Mixing Water

Company:	WHITING OIL & GAS CORP EBUSINESS	Lease:		Well Name, Nbr:	Wellington Flats, 15-11-18E
Rig Name/Nbr:	2			API No. /UWI	43.007.50347
County:	Carbon	State:	Utah	Country:	United States of America

FIELD TEST KIT

NOTE: These tests are an indication of POTENTIAL contamination and are not conclusive.
For more comprehensive results, a sample should be submitted to the Local Area Lab

Date	14-Aug-2012	**Ticket Number**	900287701
Service Supervisor	HAMMOND, QUINN	**Water Source**	Day Tank

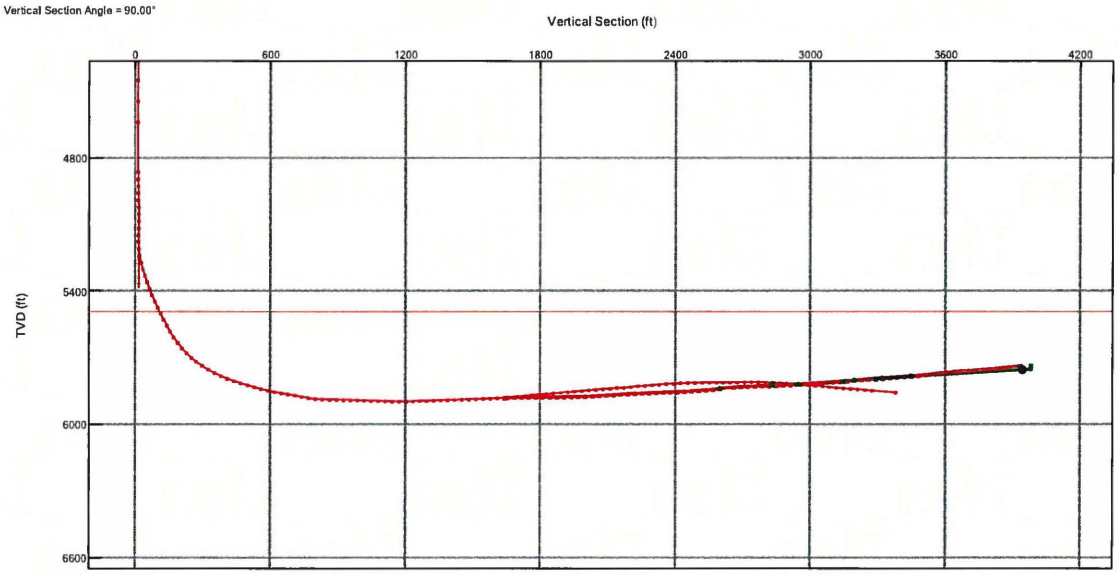
Temperature	73.5	*[<80 F]*
pH.	7	*[between 6-8 pH]*
Specific Gravity	1	*[1.000 - 1.005 see Chart]*
Chart in Kit shows comparisons of:	Chlorides	*[<3,000 ppm @ 1.004 S.G.]*
	Calcium	*[<500 ppm @ 1.004 S.G.]*

PASS	FAIL			*[Passing Parameters]*
		Nessler's Nitrogen		
☐	☐	Color of Yellow	N/A	*[<4.5 ppm (mg/L)]*
		Tannin-Lignin		
☐	☐	Color of Blue	N/A	*[<25.0 ppm]*
		Sulfate		
		Degree of Clarity	Clear	*[200 ppm]*
☐	☐	Black X Visible	No	*[if NO >200 ppm = FAIL]*
		Iron (Fe)		
☐	☐	Degree of Orange	0	*[<20.0 ppm]*

Summit Version: 7.3.0078 Saturday, March 16, 2013 02:02:00

Vertical Section Plot

FIELD UT, Carbon County (NAD 83 SPCS CZ US Feet)	STRUCTURE Whiting Sec18-15S-11E (Wellington Flats 15-11-18E)	SLOT Wellington Flats 15-11-18E
WELL Wellington Flats 15-11-18E	ACTIVE PLAN Wellington Flats 15-11-18E ST02 R6 mlc 12-Mar-13	ACTIVE SURVEY [ST02] Actual Survey
UNIT ft	HORIZONTAL REFERENCE Well Head	ELEVATION REFERENCE KB
DATE Fri 03:17 PM, March 08, 2013	DO VERSION Version DO 2.6.271.0	



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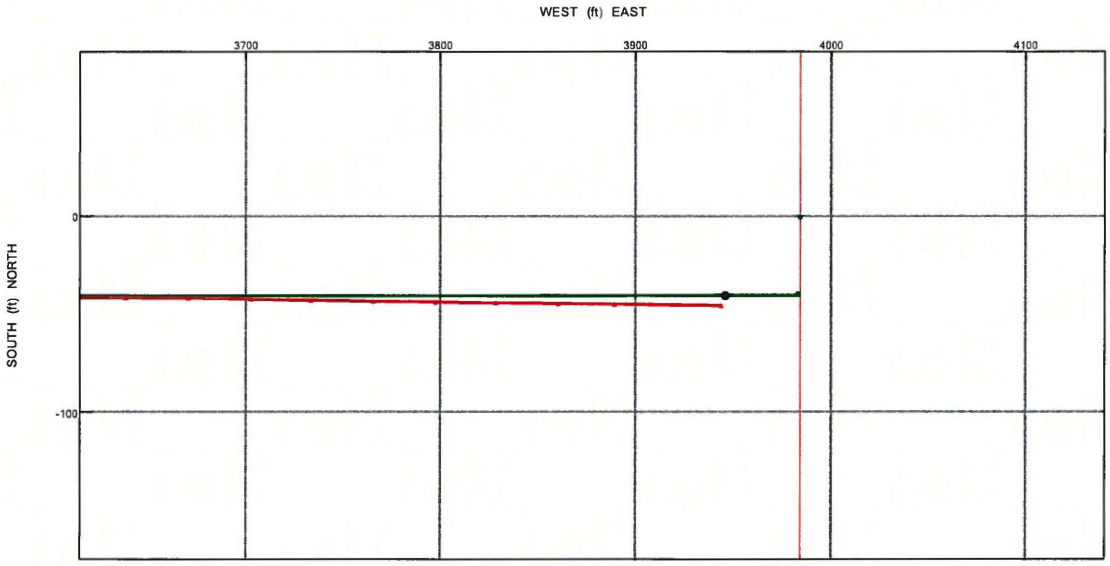
Plan View Plot

FIELD UT, Carbon County (NAD 83 SPCS CZ US Feet)	STRUCTURE Whiting Sec18-15S-11E (Wellington Flats 15-11-18E)	SLOT Wellington Flats 15-11-18E
WELL Wellington Flats 15-11-18E	ACTIVE PLAN Wellington Flats 15-11-18E ST02 R6 mlc 12-Mar-13	ACTIVE SURVEY [ST02] Actual Survey
UNIT ft	HORIZONTAL REFERENCE Well Head	ELEVATION REFERENCE KB
DATE Fri 03:17 PM, March 08, 2013	DO VERSION Version DO 2.6.271.0	



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Schlumberger

[ST02] Actual Survey Survey Report

(Non-Def Survey)

Report Date:	March 13, 2013 - 10:17 PM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	Whiting	**Vertical Section Azimuth:**	90.000 ° (True North)
Field:	UT, Carbon County (NAD 83 SPCS CZ US Feet)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Whiting Sec18-15S-11E (Wellington Flats 15-11-18E) / Wellington Flats 15-11-18E	**TVD Reference Datum:**	KB
Well:	Wellington Flats 15-11-18E	**TVD Reference Elevation:**	5493.000 ft above MSL
Borehole:	ST02	**Seabed / Ground Elevation:**	5473.000 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	11.319 °
Survey Name:	[ST02] Actual Survey	**Total Gravity Field Strength:**	999.6031 mgn (9.8 based)
Survey Date:	March 08, 2013	**Total Magnetic Field Strength:**	51646.428 nT
Tort / AHD / DDI / ERD Ratio:	194.573 ° / 3981.510 ft / 6.096 / 0.675	**Magnetic Dip Angle:**	65.168 °
Coordinate Reference System:	NAD83 Utah State Plane, Central Zone, US Feet	**Declination Date:**	March 08, 2013
Location Lat / Long:	N 39° 31' 20.48200", W 110° 44' 15.72000"	**Magnetic Declination Model:**	BGGM 2012
Location Grid N/E Y/X:	N 6995665.077 ftUS, E 1855444.333 ftUS	**North Reference:**	True North
CRS Grid Convergence Angle:	0.4883 °	**Grid Convergence Used:**	0.0000 °
Grid Scale Factor:	0.99991362	**Total Corr Mag North->True North:**	11.3193 °
		Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)	TF (°)
Marker MudLine	*20.00*	*0.06*	*142.60*	*20.00*	*0.01*	*-0.01*	*0.01*	*0.01*	*142.60*	*0.30*	*91.5M*
Tie-In to ST01	7191.00	93.68	91.50	5879.65	1642.70	8.17	1642.70	1642.72	89.72	N/A	64.26L
	7205.00	93.93	90.98	5878.72	1656.67	7.87	1656.67	1656.69	89.73	4.11	166.89R
	7237.00	92.30	91.36	5876.98	1688.61	7.22	1688.61	1688.63	89.76	5.23	112.22R
	7268.00	91.24	93.95	5876.02	1719.56	5.78	1719.56	1719.57	89.81	9.02	122.48L
	7300.00	91.17	93.84	5875.35	1751.48	3.61	1751.48	1751.49	89.88	0.41	121.61R
	7331.00	90.00	95.74	5875.03	1782.37	1.02	1782.37	1782.37	89.97	7.20	149.04L
	7363.00	89.90	95.68	5875.06	1814.21	-2.17	1814.21	1814.21	90.07	0.36	61.7R
	7395.00	89.97	95.81	5875.10	1846.05	-5.37	1846.05	1846.06	90.17	0.46	41.87R
	7426.00	91.13	96.85	5874.80	1876.86	-8.79	1876.86	1876.88	90.27	5.03	65.37L
	7458.00	91.24	96.61	5874.14	1908.63	-12.54	1908.63	1908.67	90.38	0.82	28.43R
	7490.00	91.48	96.74	5873.38	1940.41	-16.25	1940.41	1940.47	90.48	0.85	26.56L
	7521.00	91.62	96.67	5872.54	1971.18	-19.87	1971.18	1971.28	90.58	0.50	28.72R
	7553.00	92.24	97.01	5871.46	2002.94	-23.68	2002.94	2003.08	90.68	2.21	HS
	7585.00	92.65	97.01	5870.10	2034.67	-27.58	2034.67	2034.86	90.78	1.28	60.53L
	7616.00	93.27	95.91	5868.49	2065.43	-31.07	2065.43	2065.66	90.86	4.07	93.97L
	7647.00	93.13	93.92	5866.76	2096.27	-33.72	2096.27	2096.54	90.92	6.43	77.64L
	7679.00	93.37	92.82	5864.95	2128.16	-35.60	2128.16	2128.46	90.96	3.51	48.75R
	7710.00	93.72	93.22	5863.03	2159.06	-37.23	2159.06	2159.38	90.99	1.71	90L
	7742.00	93.72	91.43	5860.96	2190.96	-38.52	2190.96	2191.30	91.01	5.58	129.63L
	7774.00	91.93	89.27	5859.38	2222.92	-38.72	2222.92	2223.26	91.00	8.76	18.42R
	7805.00	91.96	89.28	5858.33	2253.90	-38.32	2253.90	2254.22	90.97	0.10	72.89L
	7837.00	92.00	89.15	5857.22	2285.88	-37.89	2285.88	2286.19	90.95	0.42	166.51R
	7868.00	91.75	89.21	5856.21	2316.86	-37.44	2316.86	2317.16	90.93	0.83	18.24R
	7900.00	92.72	89.53	5854.96	2348.83	-37.09	2348.83	2349.12	90.90	3.19	30.35R
	7931.00	93.47	89.97	5853.29	2379.78	-36.96	2379.78	2380.07	90.89	2.80	129.7R
	7963.00	93.13	90.38	5851.44	2411.73	-37.05	2411.73	2412.02	90.88	1.66	75.92L
	7994.00	93.30	89.70	5849.70	2442.68	-37.07	2442.68	2442.96	90.87	2.26	6.04R
	8026.00	93.96	89.77	5847.68	2474.62	-36.93	2474.62	2474.89	90.85	2.07	90L
	8057.00	93.96	89.58	5845.54	2505.54	-36.75	2505.54	2505.81	90.84	0.61	56.75R
	8089.00	94.13	89.84	5843.28	2537.46	-36.59	2537.46	2537.73	90.83	0.97	19.51R
	8120.00	95.17	90.21	5840.77	2568.36	-36.60	2568.36	2568.62	90.82	3.56	13.57R
	8152.00	96.20	90.46	5837.60	2600.20	-36.79	2600.20	2600.46	90.81	3.31	174.5R
	8214.00	95.58	90.52	5831.24	2661.87	-37.32	2661.87	2662.13	90.80	1.00	161.28R
	8245.00	93.34	91.28	5828.82	2692.77	-37.80	2692.77	2693.04	90.80	7.63	73.85L
	8277.00	93.47	90.83	5826.92	2724.71	-38.39	2724.71	2724.98	90.81	1.46	159.88R
	8309.00	91.86	91.42	5825.44	2756.67	-39.02	2756.67	2756.94	90.81	5.36	162.74L
	8341.00	90.83	91.10	5824.69	2788.65	-39.72	2788.65	2788.93	90.82	3.37	113.96L
	8372.00	90.79	91.01	5824.25	2819.64	-40.29	2819.64	2819.93	90.82	0.32	HS
	8404.00	92.10	91.01	5823.44	2851.63	-40.86	2851.63	2851.92	90.82	4.09	7.05L
	8435.00	93.23	90.87	5822.00	2882.59	-41.36	2882.59	2882.89	90.82	3.67	35.48L
	8467.00	93.65	90.57	5820.08	2914.53	-41.77	2914.53	2914.83	90.82	1.61	38.43R
	8499.00	94.09	90.92	5817.92	2946.45	-42.18	2946.45	2946.75	90.82	1.76	88.01L
	8530.00	94.10	90.63	5815.70	2977.37	-42.60	2977.37	2977.68	90.82	0.93	120.02L
	8562.00	93.54	89.66	5813.57	3009.30	-42.68	3009.30	3009.60	90.81	3.49	171.59L
	8593.00	93.27	89.62	5811.73	3040.24	-42.49	3040.24	3040.54	90.80	0.88	13.22R
	8625.00	93.44	89.66	5809.86	3072.19	-42.29	3072.19	3072.48	90.79	0.55	3.44L
	8656.00	94.27	89.61	5807.77	3103.12	-42.09	3103.12	3103.40	90.78	2.68	50.42R
	8688.00	94.69	90.12	5805.28	3135.02	-42.01	3135.02	3135.30	90.77	2.06	51.77L
	8720.00	95.09	89.61	5802.55	3166.90	-41.94	3166.90	3167.18	90.76	2.02	168.83R
	8751.00	94.13	89.80	5800.06	3197.80	-41.78	3197.80	3198.07	90.75	3.16	135.98L
	8783.00	93.51	89.20	5797.92	3229.73	-41.50	3229.73	3230.00	90.74	2.69	119.61R
	8815.00	93.30	89.57	5796.02	3261.67	-41.16	3261.67	3261.93	90.72	1.33	83.46R
	8847.00	93.34	89.92	5794.17	3293.62	-41.01	3293.62	3293.87	90.71	1.10	21.87R
	8878.00	94.16	90.25	5792.14	3324.55	-41.06	3324.55	3324.80	90.71	2.85	33.06L
	8910.00	94.65	89.93	5789.69	3356.45	-41.11	3356.45	3356.71	90.70	1.83	45.8L
	8941.00	94.96	89.61	5787.09	3387.35	-40.99	3387.35	3387.59	90.69	1.43	39.69R
	8973.00	95.20	89.81	5784.25	3419.22	-40.83	3419.22	3419.46	90.68	0.97	23.87R

RECEIVED: Dec. 18, 2013

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)	TF (°)
	9005.00	95.38	89.89	5781.30	3451.08	-40.74	3451.08	3451.32	90.68	0.62	60.64R
	9036.00	95.71	90.48	5778.31	3481.94	-40.84	3481.94	3482.18	90.67	2.17	52.29L
	9068.00	96.24	89.79	5774.98	3513.76	-40.92	3513.76	3514.00	90.67	2.71	131.8L
	9099.00	96.16	89.70	5771.63	3544.58	-40.78	3544.58	3544.82	90.66	0.39	152.63R
	9131.00	95.41	90.09	5768.40	3576.42	-40.72	3576.42	3576.65	90.65	2.64	27.34R
	9162.00	96.16	90.48	5765.28	3607.26	-40.87	3607.26	3607.49	90.65	2.72	172.61R
	9194.00	95.93	90.51	5761.91	3639.08	-41.15	3639.08	3639.31	90.65	0.72	174.52L
	9226.00	94.58	90.38	5758.98	3670.94	-41.40	3670.94	3671.18	90.65	4.24	138.06R
	9258.00	93.68	91.19	5756.67	3702.86	-41.83	3702.86	3703.09	90.65	3.78	4.39R
	9289.00	94.20	91.23	5754.54	3733.78	-42.49	3733.78	3734.02	90.65	1.68	31.71L
	9321.00	94.99	90.74	5751.98	3765.67	-43.04	3765.67	3765.92	90.65	2.90	167.32L
	9353.00	94.68	90.67	5749.28	3797.55	-43.43	3797.55	3797.80	90.66	0.99	55.39R
	9384.00	94.79	90.83	5746.72	3828.44	-43.83	3828.44	3828.70	90.66	0.62	23.18L
	9416.00	95.65	90.46	5743.81	3860.31	-44.19	3860.31	3860.56	90.66	2.92	49.68R
	9445.00	95.92	90.78	5740.89	3889.16	-44.50	3889.16	3889.41	90.66	1.44	HS
	9500.00	95.92	90.78	5735.22	3943.86	-45.25	3943.86	3944.12	90.66	0.00	

Survey Type: Non-Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)		Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	20.000		Act Stns	15.000	15.000	SLB_UNKNOWN-Depth Only	ST01 / Wellington Flats 15-11-18E ST01 MWD Final Surveys
	20.000	5148.000		Act Stns	15.000	15.000	SLB_UNKNOWN	ST01 / Wellington Flats 15-11-18E ST01 MWD Final Surveys
	5148.000	7191.000		Act Stns	15.000	15.000	SLB_MWD-STD	ST01 / Wellington Flats 15-11-18E ST01 MWD Final Surveys
	7191.000	9500.000		Act Stns	30.000	30.000	SLB_MWD-STD	ST02 / [ST02] Actual Survey

RECEIVED: Dec. 18, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-49795

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Wellington Flats 15-11-18E

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER:
43007503470000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER:
303 390-4095 Ext

9. FIELD and POOL or WILDCAT:
UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
1988 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWNW Section: 18 Township: 15.0S Range: 11.0E Meridian: S

COUNTY:
CARBON

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☑ SUBSEQUENT REPORT Date of Work Completion: 3/17/2014	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☑ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Well returned to production 3/17/14.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
April 17, 2014

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Cara Mezydlo	303 876-7091	Engineering Technician
SIGNATURE		**DATE**
N/A		4/9/2014

RECEIVED: Apr. 09, 2014

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-49795

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Wellington Flats 15-11-18E

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER:
43007503470000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER:
303 390-4095 Ext

9. FIELD and POOL or WILDCAT:
UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
1988 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWNW Section: 18 Township: 15.0S Range: 11.0E Meridian: S

COUNTY:
CARBON

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☑ SUBSEQUENT REPORT Date of Work Completion: 3/18/2014	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☑ OTHER	OTHER: Commenced Flaring

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

As previously reported, the Wellington well was returned to production on 3/18/2014. The produced gas volume is used on lease with the remaining volume being flared.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
April 24, 2014

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Cara Mezydlo	303 876-7091	Engineering Technician
SIGNATURE		**DATE**
N/A		4/23/2014

RECEIVED: Apr. 23, 2014

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-49795

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Wellington Flats 15-11-18E

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER:
43007503470000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER:
303 390-4095 Ext

9. FIELD and POOL or WILDCAT:
UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
1988 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWNW Section: 18 Township: 15.0S Range: 11.0E Meridian: S

COUNTY:
CARBON

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
✓ SUBSEQUENT REPORT Date of Work Completion: 9/18/2014	✓ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The Wellington Flats 15-11-18E is shut in as of 9/18/14.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
September 19, 2014

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Cara Mezydlo	303 876-7091	Engineering Technician
SIGNATURE		**DATE**
N/A		9/19/2014

RECEIVED: Sep. 19, 2014

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-49795

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Wellington Flats 15-11-18E

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER:
43007503470000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER:
303 390-4095 Ext

9. FIELD and POOL or WILDCAT:
UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
1988 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWNW Section: 18 Township: 15.0S Range: 11.0E Meridian: S

COUNTY:
CARBON

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☑ SUBSEQUENT REPORT Date of Work Completion: 10/16/2014	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☑ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The Wellington Flats 15-11-18E is producing as of 10/16/2014.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
October 22, 2014

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Cara Mezydlo	303 876-7091	Engineering Technician
SIGNATURE		**DATE**
N/A		10/21/2014

RECEIVED: Oct. 21, 2014

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-49795

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Wellington Flats 15-11-18E

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER:
43007503470000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER:
303 390-4095 Ext

9. FIELD and POOL or WILDCAT:
UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
1988 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWNW Section: 18 Township: 15.0S Range: 11.0E Meridian: S

COUNTY:
CARBON

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☑ SUBSEQUENT REPORT Date of Work Completion: 7/2/2015	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☑ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Well shut in for final electrical tie-in April 2015. Completed electrical work, changed tubing, and returned well to production July 2015.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
July 27, 2015

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Cara Mezydlo	303 876-7091	Engineering Technician
SIGNATURE		**DATE**
N/A		7/23/2015

RECEIVED: Jul. 23, 2015

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-49795

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Oil Well

8. WELL NAME and NUMBER:
Wellington Flats 15-11-18E

2. NAME OF OPERATOR:
WHITING OIL & GAS CORPORATION

9. API NUMBER:
43007503470000

3. ADDRESS OF OPERATOR:
1700 Broadway, Suite 2300 , Denver, CO, 80290 2300

PHONE NUMBER:
303 390-4095 Ext

9. FIELD and POOL or WILDCAT:
UNDESIGNATED

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
1988 FNL 0652 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: SWNW Section: 18 Township: 15.0S Range: 11.0E Meridian: S

COUNTY:
CARBON

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
✓ SUBSEQUENT REPORT Date of Work Completion: 9/30/2015	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	✓ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Please see the attached verbiage.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY

Please Review Attached Conditions of Approval
December 08, 2015

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Cara Mezydlo	303 876-7091	Engineering Technician
SIGNATURE		**DATE**
N/A		12/8/2015

RECEIVED: Dec. 08, 2015

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43007503470000

Please submit the incident online on our electronic incident report form - http://ogm.utah.gov/OGIncReport/IncidentRptFront.html .

RECEIVED: Dec. 08, 2015

During August 2015 a mechanical problem occurred at Whiting's Wellington Flats well. This caused more gas to be flared than the lease operator was aware was being flared on a daily basis. This problem was discovered late in the month, but it was too late to correct the problem and remain within the 1,800 mcf per month permit limit. For August Whiting flared 813 MCF more than the 1,800 MCF limit for the month. Production was curtailed during the month of September 2015 so that at the end of the month 927 MCF less than the 1,800 mcf per month limit was flared for the month. Therefore the average amount flared over the two month period is 1,743 mcf per month or 57 mcf per month less than the 1,800 mcf per month permit limit. Whiting apologizes for the problem, but believes by curtailing September flaring so the average amount flared per month over the two month period is less than the 1,800 mcf per month limit that it has done its best to remedy the problem and comply with the intent of the permit restrictions.

RECEIVED: Dec. 08, 2015

Division of Oil, Gas and Mining
Operator Change/Name Change Worksheet-for State use only

Effective Date: 1/1/2016

FORMER OPERATOR:	NEW OPERATOR:
WHITING OIL AND GAS CORPORATION 1700 BROADWAY STE 2300 DENVER CO 80290	LIBERTY PIONEER ENERGY SOURCE, INC 1411 EAST 840 NORTH OREM UT 84097
CA Number(s):	Unit(s):

WELL INFORMATION:

Well Name	Sec	TWN	RNG	API	Entity	Mineral	Surface	Type	Status
Wellington Flats 15-11-18E	18	15S	11E	4300750347	11215	State	State	OW	P
Wellington 19D-2002	19	15S	11E	4300750367	19877	State	State	OW	TA

OPERATOR CHANGES DOCUMENTATION:

1. Sundry or legal documentation was received from the **FORMER** operator on: 1/12/2016
2. Sundry or legal documentation was received from the **NEW** operator on: 1/12/2016
3. New operator Division of Corporations Business Number: 6353640-0143

REVIEW:

1. Surface Agreement Sundry from **NEW** operator on Fee Surface wells received on: N/A
2. Receipt of Acceptance of Drilling Procedures for APD on: N/A
3. Reports current for Production/Disposition & Sundries: 1/13/2016
4. OPS/SI/TA well(s) reviewed for full cost bonding: 1/13/2015
5. UIC5 on all disposal/injection/storage well(s) approved on: N/A
6. Surface Facility(s) included in operator change: None
7. Inspections of PA state/fee well sites complete on (only upon operators request): N/A

NEW OPERATOR BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: N/A
2. Indian well(s) covered by Bond Number: N/A
3. State/fee well(s) covered by Bond Number(s): RLB0012097

DATA ENTRY:

1. Well(s) update in the **OGIS** on: 1/13/2016
2. Entity Number(s) updated in **OGIS** on: 1/13/2016
3. Unit(s) operator number update in **OGIS** on: N/A
4. Surface Facilities update in **OGIS** on: N/A
5. State/Fee well(s) attached to bond(s) in **RBDMS** on: 1/13/2016
6. Surface Facilities update in **RBDMS** on: N/A

LEASE INTEREST OWNER NOTIFICATION:

1. The **NEW** operator of the Fee (Mineral) wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: N/A

COMMENTS:

January 6, 2016

Division of Oil, Gas and Mining
1594 West North Temple
Salt Lake City, UT 84116

Re: Change of operator submission

Dear Sir or Madam:

Whiting Oil and Gas Corporation respectfully submits 2 sundries for change of operator, in triplicate.

Questions for Liberty Pioneer Energy Source, Inc. (the buyer) should be directed to:

Kimball Hodges – Vice President
Phone: (801) 224-4771

Liberty Pioneer Energy Source
1411 East 840 North
Orem, UT 84097

If you should have any questions or need additional information, feel free to call me at the number or address listed below.

Best Regards,

Cara Mezydlo
Engineering Technician III – Central Rockies Asset Group
(303) 876-7091
cara.mezydlo@whiting.com

RECEIVED

JAN 12 2016

DIV. OF OIL, GAS & MINING

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER: ML-49795

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME: N/A

1. TYPE OF WELL: OIL WELL ☑ GAS WELL ☐ OTHER

8. WELL NAME and NUMBER: WELLINGTON FLATS 15-11-18E

2. NAME OF OPERATOR: LIBERTY PIONEER ENERGY SOURCE, INC.

9. API NUMBER: 4300750347

3. ADDRESS OF OPERATOR: 1411 East 840 North CITY Orem STATE UT ZIP 84097

PHONE NUMBER: (801) 224-4771

10. FIELD AND POOL, OR WILDCAT: UNDESIGNATED

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 1988 FNL & 652 FWL

COUNTY: CARBON

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWNW 18 15S 11E

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☑ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☑ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion: 1/1/2016	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☐ OTHER:
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Pursuant to the Assignment and Bill of Sale dated effective January 1, 2016, Whiting Oil and Gas Corporation has resigned as Operator of this well, and Liberty Pioneer Energy Source, Inc. has been designated as successor Operator.

Utah state bond RLB0012097 will be used to cover operations.

Liberty Pioneer Energy Source, Inc.
1411 East 840 North
Orem, UT 84097
Phone: (801) 224-4771

Whiting Oil and Gas Corporation
1700 Broadway, Suite 2300
Denver, CO 80290
Phone: (303) 837-1661

David M. Seery / Vice President, Land

NAME (PLEASE PRINT) Kimball E. Hodges TITLE Vice President

SIGNATURE DATE 1/5/16

(This space for State use only)

APPROVED

JAN 13 2016

DIV. OIL GAS & MINING

BY: Rachel Medina

(5/2000) (See Instructions on Reverse Side)

Unit Number
837

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
440 West 200 South, Suite 500
Salt Lake City, UT 84101-1345
http://www.blm.gov/ut/st/en.html

IN REPLY REFER TO:
3180 (UTU90533X)
UT-922000

May 26, 2016

Mr. Daniel Gunnell
Liberty Pioneer Energy Source, Inc. N2855
1411 East 840 North
Orem, Utah 84097

RECEIVED
MAY 31 2016
DIV. OF OIL, GAS & MINING

Dear Mr. Gunnell:

The Dragon Unit Agreement, Carbon and Emery Counties, Utah, is approved effective May 26, 2016. This agreement has been designated No. UTU90533X.

The unit agreement provides for the drilling of six (6) drilling operations as obligations pursuant to Section 9 of the unit agreement. The initial obligation well is to be drilled to a depth of 5,650 feet or a depth sufficient to test 100 feet below the top of the White Rim Formation, whichever is less; and is to be located in the NWNE, Section 21, Township 15 South, Range 11 East, SLB&M, Carbon County, Utah. At least four vertical wells must be drilled in compliance with the above specified formation or depth requirements and must be located a minimum of one (1) mile from the other three vertical wells at a location approved by the Authorized Officer (AO). One of the wells must be located in the southern half of the Dragon Unit in Township 17, 18 or 19 South. For the other two drilling operations, the operator will have the option to either drill vertical wells in compliance with the above specified location, formation and depth requirements or drill horizontal laterals in the Moenkopi Formation of not less than 1,000 feet in length in one or more of the existing wells.

No extension of time beyond November 26, 2016, will be granted to commence the "initial obligation well" other than "unavoidable delay" (Section 25), where justified.

Approval of this agreement does not warrant or certify that the operator thereof and other holders of operating rights hold legal or equitable title to those rights in the subject leases which are committed hereto.

The basic information is as follows:

1. The depth of the test well and the area to be unitized were approved under the unit plan regulations of December 22, 1950, by Bureau of Land Management letter dated April 12, 2016.

2. All substances are unitized.

3. The unit area embraces 99,685.68 acres, more or less, of which 64,630.42 acres (64.83%) are Federal lands, 13,822.30 acres (13.87%) are State lands and 21,232.96 acres (21.30%) are Patented lands.

   The following leases embrace lands included within the unit area:

UTU18126**	UTU84547	UTU85165	UTU87155**	UTU87643
UTU84537*	UTU84548	UTU85166	UTU87317*	UTU89915**
UTU84538*	UTU84549	UTU85171	UTU87318	UTU89919
UTU84539	UTU84550	UTU85988**	UTU87319	UTU89920
UTU84540*	UTU84551**	UTU85989* **	UTU87333	UTU89921
UTU84542	UTU84552	UTU87150	UTU87334	UTU89942*
UTU84543	UTU84553*	UTU87151*	UTU87335	UTU91304
UTU84544	UTU84563	UTU87152	UTU87336	UTU91334*
UTU84545	UTU84565	UTU87153	UTU87337	UTU91340
UTU84546	UTU85164	UTU87154	UTU87467	

   * Indicates lease to be considered for segregation by the Bureau of Land Management pursuant to Section 18 (g) of the unit agreement and Public Law 86-705.

   ** Indicates non-committed leases.

   Oil and gas lease UTU85989 is currently non-committed to the unit agreement. Upon commitment to the unit agreement the lease will be considered for segregation.

   All lands and interests are fully/effectively committed except for the partially committed tracts 138, 139 and 191, which total 195.00 acres (0.02%); and the non-committed tracts listed in Attachment "A", which total 14,644.67 acres (14.70%). Also, certain overriding royalty interest owners have not signed the unit agreement. All parties owning interests within this unit area were invited to join the unit agreement.

   Unleased Federal lands, Tract 50, totaling 433.80 acres (0.04 %) are not committed, but are considered to be controlled acreage because, prior to issuance of leases for the acreage, the lessee(s) may be required to commit to the unit agreement.

In view of the foregoing commitment status, effective control of operations within the unit area is assured. We are of the opinion that the agreement is necessary and advisable in the public interest and for the purpose of more properly conserving natural resources.

Copies of the approved agreement are being distributed to the BLM Price Field Office, Utah Division of Oil, Gas and Mining (UDOGM), School and Institutional Trust Lands Administration (SITLA), and the Office of Natural Resources Revenue (ONRR). You are requested to furnish all other interested parties with appropriate evidence of this approval.

If there are any questions, please contact Judy Nordstrom at (801) 539-4108.

Sincerely,

Roger L Bankert

Roger L. Bankert
Chief, Branch of Minerals

cc: UDOGM
SITLA
ONRR w/Exhibit B (Attn: Jessica Bowlen)
FOM – Price w/enclosure

DRAGON UNIT AGREEMENT
ATTACHMENT 'A'
NON-COMMITTED

Tract #	Lease #	Acres
1	UTU18126	40
15	UTU84551	159.3
24	UTU85988	80
25	UTU85989	80
31	UTU87155	1949.52
42	UTU89915	440
70	ML-53156	571.05
71	UNLEASED-STATE	2850.08
72	UNLEASED-FEE	264.18
73	UNLEASED-FEE	240
74	UNLEASED-FEE	443.27
75	UNLEASED-FEE	195
76	UNLEASED-FEE	607.35
89	UNLEASED-FEE	160
94	UNLEASED-FEE	10.32
99	UNLEASED-FEE	13.25
115	UNLEASED-FEE	130
116	UNLEASED-FEE	720
118	UNLEASED-FEE	40
120	UNLEASED-FEE	50
121	UNLEASED-FEE	90
125	UNLEASED-FEE	40
126	UNLEASED-FEE	40
127	UNLEASED-FEE	40
136	UNLEASED-FEE	360
142	UNLEASED-FEE	8.98
143	UNLEASED-FEE	40
144	UNLEASED-FEE	40
149	UNLEASED-FEE	37.5
156	UNLEASED-FEE	40
157	UNLEASED-FEE	40
159	UNLEASED-FEE	80.3
161	UNLEASED-FEE	15
166	UNLEASED-FEE	45
170	UNLEASED-FEE	120
178	UNLEASED-FEE	80
185	UNLEASED-FEE	133.34
192	UNLEASED-FEE	20

194	UNLEASED-FEE	80.13
196	UNLEASED-FEE	40
197	UNLEASED-FEE	340
199	UNLEASED-FEE	50.94
200	UNLEASED-FEE	1.62
201	UNLEASED-FEE	2.22
202	UNLEASED-FEE	0.19
203	UNLEASED-FEE	7.84
212	UNLEASED-FEE	20.11
213	UNLEASED-FEE	10
221	UNLEASED-FEE	12.79
222	UNLEASED-FEE	160
224	UNLEASED-FEE	80
225	UNLEASED-FEE	173.89
229	UNLEASED-FEE	120
231	UNLEASED-FEE	40
232	UNLEASED-FEE	40
233	UNLEASED-FEE	120
237	UNLEASED-FEE	37.65
239	UNLEASED-FEE	0.36
240	UNLEASED-FEE	0.09
241	UNLEASED-FEE	40
242	UNLEASED-FEE	476.43
243	UNLEASED-FEE	7.23
245	UNLEASED-FEE	36.18
246	UNLEASED-FEE	59.22
247	UNLEASED-FEE	1.73
248	UNLEASED-FEE	51.25
249	UNLEASED-FEE	19
251	UNLEASED-FEE	40
252	UNLEASED-FEE	18.54
254	UNLEASED-FEE	10.1
255	UNLEASED-FEE	9.28
256	UNLEASED-FEE	48.11
257	UNLEASED-FEE	6.81
258	UNLEASED-FEE	24.45
259	UNLEASED-FEE	80
260	UNLEASED-FEE	35.14
261	UNLEASED-FEE	4.86
263	UNLEASED-FEE	40.22
264	UNLEASED-FEE	160
265	UNLEASED-FEE	40
266	UNLEASED-FEE	10.5

267	UNLEASED-FEE	3.4
268	UNLEASED-FEE	0.68
269	UNLEASED-FEE	80
270	UNLEASED-FEE	281.3
271	UNLEASED-FEE	5
272	UNLEASED-FEE	40
273	UNLEASED-FEE	120
274	UNLEASED-FEE	40
275	UNLEASED-FEE	60.42
276	UNLEASED-FEE	11.71
277	UNLEASED-FEE	10
278	UNLEASED-FEE	20
279	UNLEASED-FEE	3.03
280	UNLEASED-FEE	19.93
281	UNLEASED-FEE	6.31
282	UNLEASED-FEE	40.09
283	UNLEASED-FEE	17.36
284	UNLEASED-FEE	1.06
285	UNLEASED-FEE	2.45
286	UNLEASED-FEE	1.81
287	UNLEASED-FEE	0.92
288	UNLEASED-FEE	1.83
289	UNLEASED-FEE	0.92
290	UNLEASED-FEE	0.92
291	UNLEASED-FEE	1.84
292	UNLEASED-FEE	1.99
293	UNLEASED-FEE	0.85
294	UNLEASED-FEE	8.27
295	UNLEASED-FEE	2.25
296	UNLEASED-FEE	35.44
297	UNLEASED-FEE	15.39
298	UNLEASED-FEE	22.63
299	UNLEASED-FEE	1.11
300	UNLEASED-FEE	0.52
301	UNLEASED-FEE	2
302	UNLEASED-FEE	1.76
303	UNLEASED-FEE	2.21
304	UNLEASED-FEE	0.24
305	UNLEASED-FEE	3.8
306	UNLEASED-FEE	0.54
307	UNLEASED-FEE	68.45
308	UNLEASED-FEE	9.82
309	UNLEASED-FEE	10

310	UNLEASED-FEE	5.08
311	UNLEASED-FEE	28.29
312	UNLEASED-FEE	33.29
313	UNLEASED-FEE	13.4
314	UNLEASED-FEE	20.00
315	UNLEASED-FEE	.07
316	UNLEASED-FEE	26.11
317	UNLEASED-FEE	0.25
318	UNLEASED-FEE	19.92
319	UNLEASED-FEE	19.92
320	UNLEASED-FEE	19
321	UNLEASED-FEE	6
322	UNLEASED-FEE	20
323	UNLEASED-FEE	0.7
324	UNLEASED-FEE	30.52
325	UNLEASED-FEE	1
326	UNLEASED-FEE	1.15
327	UNLEASED-FEE	62.87
328	UNLEASED-FEE	160
329	UNLEASED-FEE	15.16
330	UNLEASED-FEE	2.5
331	UNLEASED-FEE	2.56
332	UNLEASED-FEE	80
333	UNLEASED-FEE	80
334	UNLEASED-FEE	40
335	UNLEASED-FEE	5.71
336	UNLEASED-FEE	19
337	UNLEASED-FEE	70
338	UNLEASED-FEE	0.96
339	UNLEASED-FEE	2.27
340	UNLEASED-FEE	10.07
341	UNLEASED-FEE	10.24
342	UNLEASED-FEE	8.73
343	UNLEASED-FEE	1.29
344	UNLEASED-FEE	0.04
		14,644.67

CERTIFICATION - DETERMINATION

Pursuant to the authority vested in the Secretary of the Interior, under the Act approved February 25, 1920, 41 Stat. 437, as amended, 30 U.S.C. sec 181, et seq., and delegated to the Authorized Officer of the Bureau of Land Management, under the authority of 43 CFR 3180, I do hereby:

A. Approve the attached agreement for the development and operation of the Dragon Unit Area, Carbon and Emery Counties, Utah. This approval shall be invalid *ab initio* if the public interest requirement under § 3183.4(b) of this title is not met.

B. Certify and determine that the unit plan of development and operation contemplated in the attached agreement is necessary and advisable in the public interest for the purpose of more properly conserving the natural resources.

C. Certify and determine that the drilling, producing, rental, minimum royalty and royalty requirements of all Federal leases committed to said Agreement are hereby established, altered, changed or revoked to conform with the terms and conditions of this agreement.

Dated: May 26, 2016

Roger L Bankert

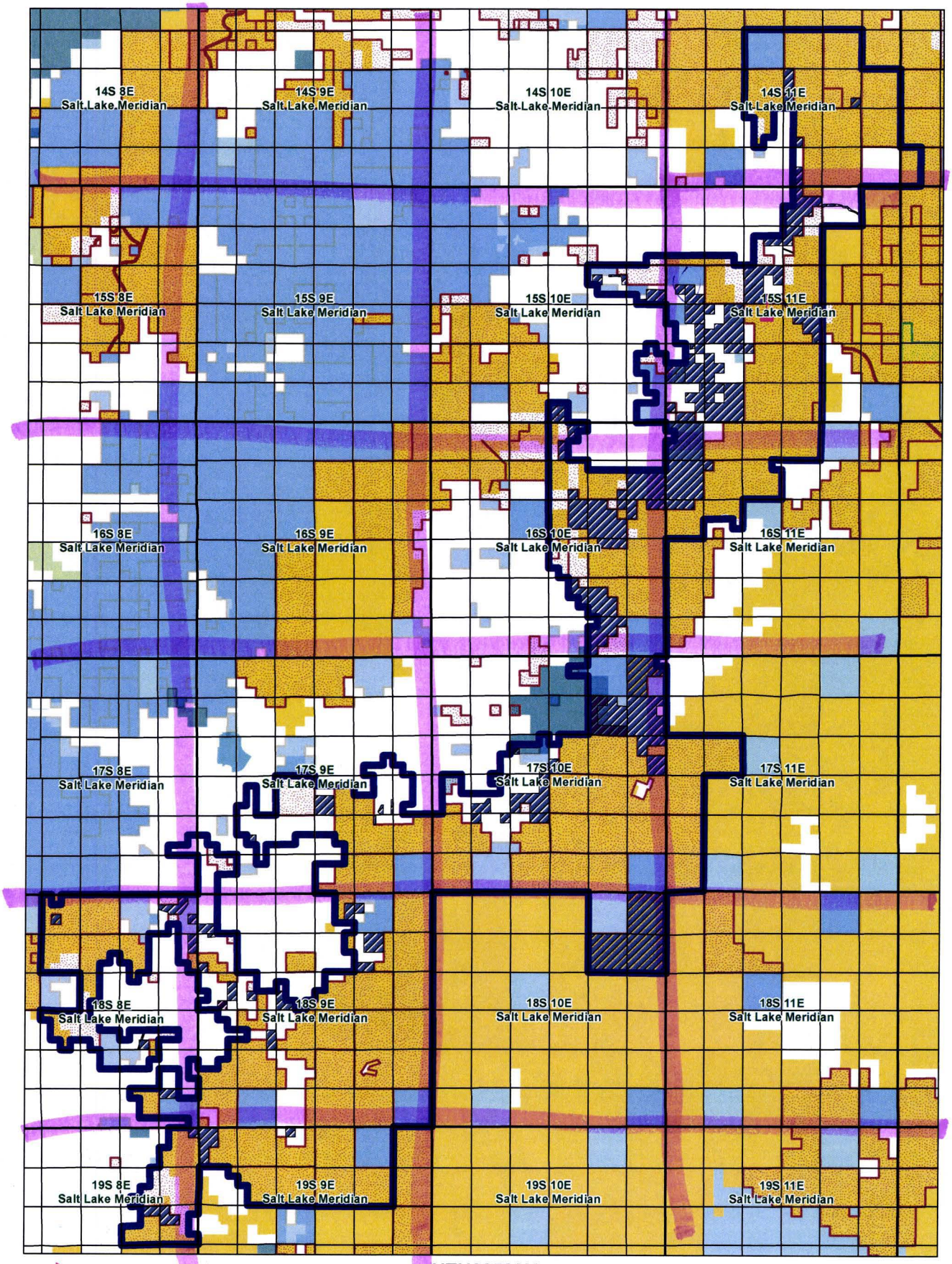
Chief, Branch of Minerals
Bureau of Land Management

Contract No: UTU90533X

DRAGON UNIT

Carbon and Emery Counties, Utah

EFFECTIVE: May 26, 2016



First Obligation Well

Uncommitted

Unleased Federal

UTU90533X

99,685.68 ACRES

6/3/2016

Dragon Unit
Effecitve 5/26/2016

Well Name	SEC	TWN	RNG	API Number	Entity	Mineral	Surface	Type	Status
Wellington Flats 15-11-18E	18	150S	110E	4300750347	18821	3	3	OW	P
Wellington 19D-2002	19	150S	110E	4300750367	19877	3	3	OW	TA